

THE JONES COMMISSION

2

DOD STUDY OF THE MILITARY COMMISSARY SYSTEM

AD-A221 313

Volume II ♦ Appendices
December 18, 1989

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OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
(FORCE MANAGEMENT AND PERSONNEL)
WASHINGTON, D.C.

DOD Study of Military Commissaries - 1989

Volume I Study Report

Volume II Appendices

===== A DOD STUDY OF MILITARY COMMISSARIES =====



STATEMENT "A" per Ltc. E.J. Vincent
OASD-FM&P The Pentagon
Washington, DC 20310
TELECON

5/7/90

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PREFACE

The Department of Defense Study of Military Commissaries was initiated Mar 31, 1989 by the Deputy Assistant Secretary of Defense (Resource Management & Support), Mr. David J. Berteau. The study responds to a Congressional request that military commissaries be thoroughly and comprehensively analyzed. The study was to conduct an unrestrained baseline reassessment to be used to reduce the systems' dependence on appropriations and in the development of policies that will move the commissary system forward in an orderly and consistent manner into the next century. This study is submitted to fulfill this requirement.

The study organization included a steering group chaired by Lieutenant General Donald W. Jones, Deputy Assistant Secretary of Defense (Military Manpower & Personnel Policy) with Deputy Assistant Secretary and flag/general officer representation from the

Office of the Secretary of Defense and the Military Departments. The steering group received assistance from a Technical Advisory Group composed of the four commissary system commanders. The steering group provided executive direction to a study staff composed of representatives from the Services's headquarters staffs, the commissary systems, and technical support agencies such as the Defense Personnel Support Center, Army and Air Force Exchange Service and Military Traffic Management Command. This structure brought together the most knowledgeable individuals in these organizations under a single oversight body and provided an effective way to approach and resolve the complex issues under review. The study group sought and received input from industry trade groups, commissary field activities, commissary support activities and various grocery industry corporations. The review took place between April and September 1989.

===== *A DOD STUDY OF MILITARY COMMISSARIES* =====

PARTICIPANTS

STEERING GROUP

Chairman and Deputy Assistant Secretary of Defense
(Military Manpower & Personnel Policy)
Lieutenant General Donald W. Jones, USA

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Lieutenant General Charles C. McDonald, USAF

Deputy Chief of Staff for Logistics
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Vice Admiral Stanley R. Arthur, USN

===== A DOD STUDY OF MILITARY COMMISSARIES =====

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Lieutenant General W. G. Carson, USMC

Deputy Assistant Secretary of Defense
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Mr. Robert A. Stone

Deputy Assistant Secretary of Defense
(Management Systems)
Mr. Herbert H. Kraft
Mr. Alvin Tucker

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Brigadier General Charles E. St. Arnaud, Commanding Officer, TSA

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and Services Division

Brigadier General W. T. Adams, USMC, Director, Facilities
and Services Division

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Mr. Thomas Milks, TSA

Mr. John Liddy, AFCOMS

Ms Arlene Ripp, NAVRESSO

===== A DOD STUDY OF MILITARY COMMISSARIES =====

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Mr. William Hoover, AFCOMS

Mr. Patrick Nixon, USMC

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ADMINISTRATIVE SUPERVISOR

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Sgt Mickalyn G. Clark, USAF

Sgt Demetria M. Miles, USMCR

===== A DOD STUDY OF MILITARY COMMISSARIES =====

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Sgt Gilbert Randall, USA

CPL Gerald Woodard, USMCR

SPC Lashunder Hodge, USA

LCPL William Root, USMCR

OTHER SUPPORT

SFC Rexford Miller, USA

Appendix A

BASIS OF STUDY

A DOD STUDY OF MILITARY COMMISSARIES



FORCE MANAGEMENT
AND PERSONNEL

THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON D C 20301-5000

31 MAR 1995

MEMORANDUM FOR ASSISTANT SECRETARY OF THE ARMY (INSTALLATIONS
AND LOGISTICS)
ASSISTANT SECRETARY OF THE NAVY (SHIPBUILDING AND
LOGISTICS)
ASSISTANT SECRETARY OF THE AIR FORCE (READINESS
SUPPORT)
DIRECTOR, DEFENSE LOGISTICS AGENCY
COMMANDER, MILITARY TRAFFIC MANAGEMENT COMMAND

SUBJECT: DoD Study of the Military Commissary System

In the letter at Attachment 1, the Chairman, Morale, Welfare, and Recreation Panel of the House Armed Services Committee has directed that the Department conduct a comprehensive, unrestrained study of the military commissary system. The letter states the "study must strive toward developing policies that move the system forward in an orderly and consistent manner. Study parameters should encompass the options for ensuring a viable commissary program...examine the nature of the patron base, the projected demand for services, and the resource methodology needed to provide a satisfactory program in the 1990s and beyond."

The commissary benefit is a key factor in our ability to retain professional military members. Since it is in competition with other requirements for diminishing Department resources, we must ensure policies and directions are in place which allow the system to operate efficiently, be adaptable to change, and convey the maximum benefit to the Service member. This study will be key to setting this course for years to come. Proper consideration will address many multi-faceted and complex issues. It is a major undertaking that cannot be viewed lightly. The Deputy Secretary of Defense has directed the establishment of a DoD commission to conduct the study and appointed Lieutenant General Donald W. Jones as the chair. At Attachment 2 is an organizational chart for the commission and at Attachment 3 a detail listing of the resources required to staff and guide the effort. At Attachment 4 is a brief milestone chart detailing key events. I ask that you take the necessary actions to provide the resources tasked to your Department or agency. The full-time staff must be available by April 17 for a 180-day commitment. Each tasked agency must fund the resources required. Please report the names of the personnel who will represent your department/agency to Colonel Stuart Travis, telephone 697-7197, by April 7.

===== A DOD STUDY OF MILITARY COMMISSARIES =====

I appreciate your assistance and timely response and regret the short notice requirement; however, I am sure you will agree the effort is crucial to the benefits program of the military community.

David J. Berneau
David J. Berneau
Deputy Assistant Secretary of Defense
(Resource Management & Support)

Attachments:
As stated

A DOD STUDY OF MILITARY COMMISSARIES

CHAS. E. BENNETT FLORIDA
 G. W. SPAN, MONTGOMERY, MISSISSIPPI
 RONALD J. DE LUCA CALIFORNIA
 PATRICIA W. POWERS CO. COLORADO
 J. E. BROWN MARYLAND
 NICHOLAS M. ROY MASSACHUSETTS
 EARL J. C. FLORIDA
 W. S. SUTTON MISSOURI
 W. A. L. T. TEXAS
 PAUL W. LADD OKLAHOMA
 THOMAS W. TUGNETT PENNSYLVANIA
 RICHARDSON MARYLAND
 DENNIS M. WERTLE MICHIGAN
 W. A. J. T. TENNESSEE
 ALAN E. S. S. VIRGINIA
 RICHARD RAY GEORGIA
 JOHN M. SANDY JR. SOUTH CAROLINA
 FRANK W. C. INDIANA
 SCOTT W. P. TEXAS
 G. R. J. D. GEORGIA
 TOMMY F. B. ARKANSAS
 ALAN C. B. TEXAS
 GEORGE J. H. NEW YORK
 JOSEPH E. BRENNAN MAINE
 CHINE R. V. A.
 W. MARTIN LANCASTER NORTH CAROLINA
 LANE EVANS ILLINOIS
 JAMES H. B. NEVADA
 JOHN TANNER TENNESSEE
 MICHAEL R. M. NEW YORK

U.S. House of Representatives COMMITTEE ON ARMED SERVICES Washington, DC 20515 ONE HUNDRED FIRST CONGRESS LES ASPIN, WISCONSIN, CHAIRMAN

March 2, 1989

WILLIAM L. JOHNSON ALABAMA
 RICHARD SPRING SOUTH CAROLINA
 BOB STONE ARIZONA
 JIM COLLIER NEW JERSEY
 LARRY W. H. ARIZONA
 ROBERT W. H. ARIZONA
 DANIEL J. H. ARIZONA
 DAVID J. H. ARIZONA
 JERRY W. H. ARIZONA
 BEN B. CLARK
 ANDY R. FLORIDA
 JAMES H. FLORIDA
 JOHN C. FLORIDA
 CLYDE W. PENNSYLVANIA
 JONATHAN A. ARIZONA
 ARTHUR R. SOUTH CAROLINA
 ROBERT A. CALIFORNIA
 JOE H. COLORADO
 JIM M. ARIZONA
 RONALD E. MARYLAND

Maj. Gen. Donald W. Jones
 Deputy Assistant Secretary of Defense
 (Military Manpower & Personnel Policy)
 Department of Defense
 Room 3C963, The Pentagon
 Washington, D.C. 20301

Dear General Jones:

The Fiscal Year 1989 National Defense Authorization Act strongly endorsed the commissary privilege by prohibiting the privatization of military commissaries. This measure represented a major commitment on the part of the Congress and the American people to ensure that the system continues as a viable entity in fulfillment of its purpose.

However, the system remains a competitor for limited defense resources as we debate budget priorities. We may be already approaching the upper threshold of appropriations that can be committed to the commissary program.

The leadership of the commissary program has made impressive gains in recent years. This success presents us with a new dilemma: as more entitled people shop at larger and more modern stores, appropriated fund operating resources are strained. The system is now challenged to survive success. This challenge is formidable, but it must be met if we are to continue to provide the commissary benefit in a satisfactory manner.

If nothing is done, I am certain the system will ultimately face curtailed operating hours, degraded service, and limited product availability. I believe the leaders of the commissary system share this view as evidenced by the variety of measures underway or being contemplated to meet the challenge.

Today, each branch of the armed services are taking a different approach to enhance system resourcing:

- More commissary functions and entire departments are contracted out.
- Manufacturers and brokers are providing shelf-stocking and other in-store services to varying degrees.

Atch 1

===== A DOD STUDY OF MILITARY COMMISSARIES =====

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- Industry increasingly is being asked to provide more frequent delivery and distribution services.

- The armed services differ in their management of funding. Examples of this disparity are in the management of funds for construction and stock fund allocation.

Action being contemplated in the executive and legislative branches will bring further challenge and opportunity:

- Increases or changes in the application of surcharge funds is being proposed in some sectors in order to offset appropriated fund operating costs.

- A test is about to begin on a hybrid of the exchange and commissary systems in a combined store, a move with vast implications.

- The armed services vary on stock assortments. This has the effect of some commissary proceeds accruing to the exchange service and ultimately the base morale, welfare and recreation fund to compensate for funding shortages.

- A program has been proposed that will effectively charge manufacturers for government distribution.

- The Department of Treasury has asked the Department of Defense (DOD) to conduct a test of a debit card for customer transactions.

- Several government procurement regulations have driven the cost of certain products higher contrary to the best interest of the military patron.

- Suppliers are asking to promote products in commissaries by advertising that a portion of the cost of their products will be donated to various beneficial programs.

- In order to accommodate increased demand, the Army and the Air Force are testing a concept to keep some of their stores open longer, and the Air Force has implemented a number of "Wee Servs".

- The base closure initiative promises to cause considerable program disruption, overloading some stores, causing relocations, and creating new requirements.

The panel has consistently served notice that the Department of Defense may be constructing facilities that may not be able to fully staffed and operated. I recognize the efficiencies of modern stores. However, we are beginning to question whether the scope of the stores being built takes into full consideration the increased operating costs brought about by the increased sales.

The list of challenges and possible solutions is long. While each armed service faces similar challenges, approaches to the solution are very different. While innovation should be encouraged and change is essential and

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inevitable, I am concerned that significantly disparate policies designed to address similar problems cause considerable disruption over the long term. This inconsistency sends mixed signals to Congress, Federal budget managers, industry, and the patrons.

The time has come for an unrestrained baseline reassessment of the DOD commissary program. I therefore ask that DOD initiate a comprehensive study of the commissary system in consultation with industry. This study must strive toward developing policies that move the system forward in an orderly and consistent manner. Study parameters should encompass the options for ensuring a viable commissary program. The study should also examine the nature of the patron base, the projected demand for services, and the resource methodology needed to provide a satisfactory program in the 1990s and beyond. The study must have the participation of representatives from the Department of Defense, each of the armed services' commissary systems, and the Defense Logistics Agency. The exchange services should be consulted in adjunct areas. The study should be provided to the panel by July 1, 1989.

The study should also consider the impact of base closures and realignments. This should include an assessment of the value of assets that will be lost and other costs associated with closures or force reductions. This inventory also should include an assessment of funds required to develop and operate facilities at bases where there may be population increases or otherwise experience increased demand due to closure of bases in close proximity. The panel also requests a similar inventory regarding nonappropriated fund morale, welfare and recreation programs. The panel directs that no further construction contracts be awarded that use either commissary surcharge funds or nonappropriated funds at bases targeted for closure or realignment.

The panel is prepared to work closely with the DOD in protecting the commissary privilege and looks forward to a vigorous effort by DOD in this regard.

Sincerely,

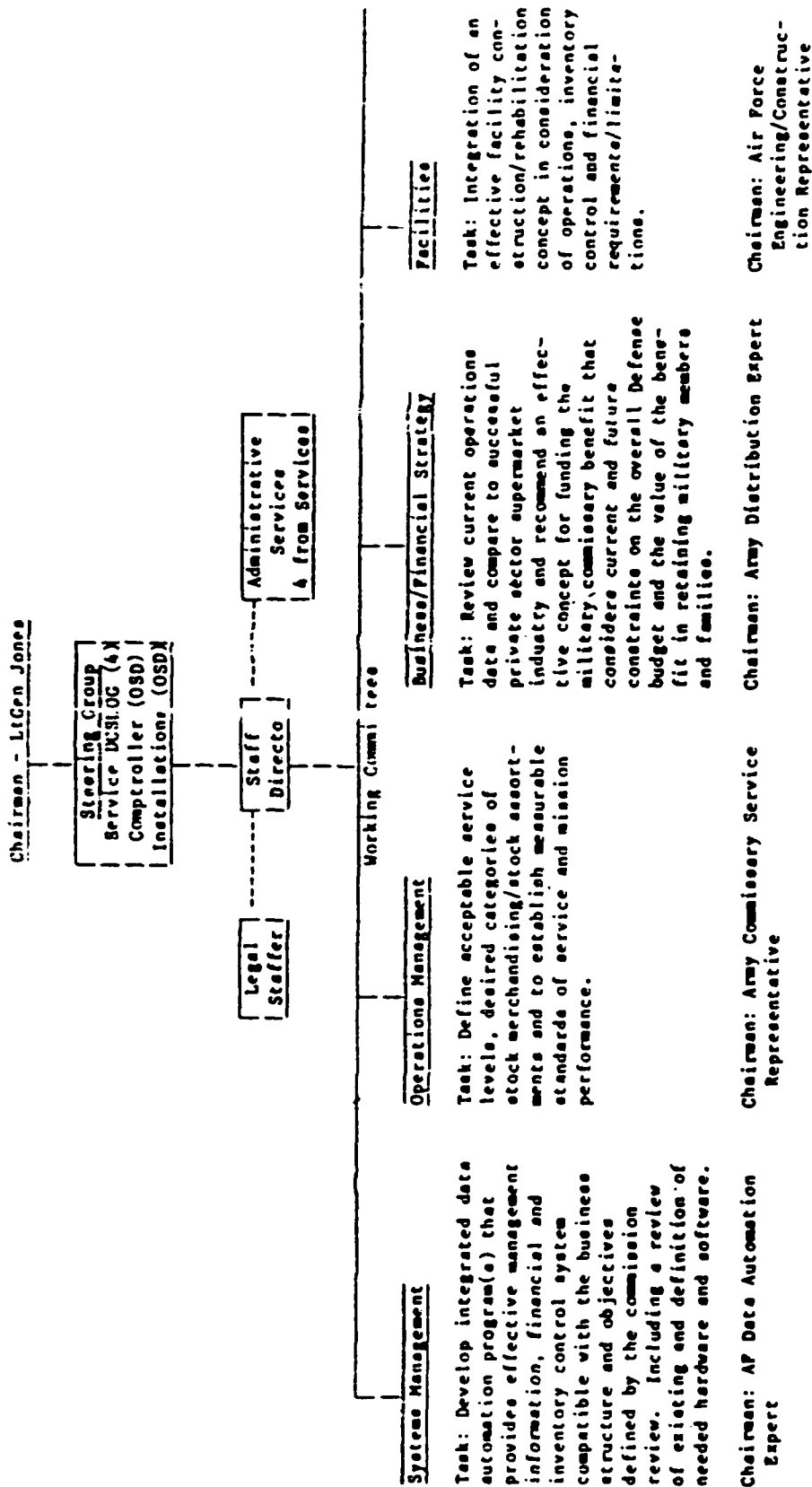


Marvin Leath
Chairman
Morale, Welfare and Recreation Panel
Subcommittee on Readiness

ML:srkl

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION ORGANIZATION



A DOD STUDY OF MILITARY COMMISSARIES

Staffing	Inventory/Management Control
<p>Task: To review current organization structure, compensation, incentives, and personnel policies to propose an effective system to ensure efficient and economic mission accomplishment that includes ensuring customer oriented service to the military member.</p>	<p>Task: To develop effective means to procure and distribute sufficient quantities of resale merchandise to satisfy customer demand in a fashion to ensure freshness, acceptability and availability of product; but at the same time make effective efficient use of resources.</p>
<p>Chairman: Navy Commissary Representative</p>	<p>Chairman: Navy Inventory Management Systems Representative</p>

Summary of Committee membership. All 16 permanent members appointed to commission for 180 day, plus 4 administrative staff.

- A. Army - three representatives (1) a commissary expert; (2) engineering/construction expert; (3) an overseas distribution expert.
- B. Navy - three representatives (1) a commissary expert; (2) an inventory management systems expert; (3) a nonappropriated fund personnel expert.
- C. Marine Corps - one representative - a commissary expert.
- D. Air Force - three representatives (1) a commissary expert; (2) an engineering/construction expert; (3) a data information expert.
- E. Army and Air Force Exchange Service - one representative.
- F. Defense Logistics Agency - one distribution representative from Defense Personnel Support Center.
- G. Military Traffic Management Command - one transportation representative as appointed by MTRC.
- H. Office of Secretary of Defense - (1) lawyer (part-time); (2) one civilian personnel expert.
- I. Staff Director - as appointed by Chairman.

Administrative staff (appointed by each Military Service). One office manager (military or civilian); 3 admin. specialists.

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Summary of Personnel Resources Tasked to the Jones Commission DoD Review of Military Commissaries

<u>Function</u>	<u>Requirement</u>
Chairman	LTG Donald W. Jones, DASD(MM&PP)
Steering Group	Attend meetings of the Steering Group to be held @ twice monthly.
	Deputy Chief of Staff, Logistics, Army
	Deputy Chief of Staff, Naval Operations (Logistics)
	Deputy Chief of Staff for Installation and Logistics, Marine Corps
	Deputy Chief of Staff, Air Force, Logistics and Engineering
	Deputy Assistant Secretary of Defense (Installations), OASD(P&I)
	Deputy Assistant Secretary of Defense (Management Systems), OASD(C)

Consultants to the Staff Director

From within DoD or private sector on a temporary basis as deemed appropriate by the Commission Chairman/Staff Director.

Full Time Commission Staff

Staff Director	0-6	As appointed by the Chairman.
Administrative Staff	Army-Admin Specialist	E-7 or E-8
	Air Force Typist	E-4 or equivalent civilian grade
	Navy Typist	E-4 or equivalent civilian grade
	Marine Corps Typist	E-4 or equivalent civilian grade
<u>Committee Members</u>		0-4 to 0-6 or equivalent graded civilian

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===== A DOD STUDY OF MILITARY COMMISSARIES =====

Army - 3 members as follows:

1. A commissary expert from the Troop Support Agency.
2. Engineering/construction expert.
3. An expert for distribution of subsistence to overseas locations.

Navy - 3 members as follows:

1. A commissary expert from NAVRESSO.
2. An inventory management expert.
3. A nonappropriated fund personnel expert.

Marine Corps - 1 member as follows:

1. A commissary expert for the Marine Corps commissary system.

Air Force - 3 members as follows:

1. A commissary expert from AFCOMS.
2. An engineering/construction expert.
3. A data automation expert.

Defense Logistics Agency - 1 member as follows:

A distribution expert from Defense Personnel Support Center.

Army and Air Force Exchange Service:

One representative expert in retail operations and distribution.

Military Traffic Management Command:

One representative as appointed by Commander, MTMC.

Office of the Secretary of Defense:

One attorney as appointed by the chairman in a part-time advisory capacity.

One civilian personnel policy expert as appointed by ASD(FM&P).

===== A DOD STUDY OF MILITARY COMMISSARIES =====

Milestones for Completing the DoD Study of Military Commissaries (the Jones Commission)

<u>Action</u>	<u>Milestone Completion</u>	<u>OPR</u>
1. Determine composition of the study group or commission and organizational structure. Several Options, recommendations and simple milestones are provided as follows:	March 24, 1989	DASD(MM&PP)
2. Arrange for office space and equipment for Commission for 16 members and 4 administrative staff	April 3, 1989	DASD(MM&PP)
3. Arrange to receive Commission staff and prepare In-briefings, billeting, etc.	Mar 27 - Apr 17	DASD(MM&PP)
4. Write letter to General Officer Steering Group outlining major objectives of their involvement and advising of first meeting to be hosted by General Jones	March 27, 1989	DASD(MM&PP)
5. Host initial meeting of General Officer Steering Group in Pentagon	April 17, 1989	Gen Jones
6. Each member of commission will be assigned Committee Chairmanship responsibilities	April 20, 1989	Staff Director
7. Chairman prepare In Process Review for General Officer Steering Group approximately every 15 days.	First IPR on April 20, 1989	Commission Chairman
8. Present draft report and brief to Steering Group	June 1, 1989	Commission Chairman
9. Final Draft Report submitted to Military Departments for comment	June 10, 1989	ODASD(MM&PP)

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- | | | |
|---|---------------|--------------|
| 10. Comments included as appendix to report and final report submitted to ASD(FM&P) for signature | June 25, 1989 | ODASD(MM&PP) |
| 11. Report submitted to Congress | July 1, 1989 | TBD |

All actions assume no extension of the suspense to Congress is approved. It is anticipated that additional time may be required to complete the report. July 1, 1989, is used for planning purposes.

Appendix B

LEGAL AND LEGISLATIVE REFERENCES

===== A DOD STUDY OF MILITARY COMMISSARIES =====

CURRENT LEGISLATION

1. 10 USC 9621 Air Force Commissaries
2. 10 USC 4621 Army Commissaries
3. 10 USC 7601 Navy Commissaries
4. 10 USC 2482 Private persons may operate commissaries
5. 10 USC 2484 List of items that customer must pay for
6. 10 USC 2485 Donation of unmarketable food
7. 10 USC 2486 Merchandise that can be sold/surcharge
8. 10 USC 2487 Limitation on release of sales information
9. 10 USC 2685 Surcharge for construction
10. 10 USC 2304 Authority to buy Brand Name items without competition
11. Congressional record - Authority to buy brand name beef
12. DOD FAR 219.7000 - Authority to purchase commissary resale items without Small Business preference
13. DOD Directive 1330.17 - Military Commissaries
14. Comptroller General Decisions - B14851, B189651, B190650, - Purchase from AAFES, a NAF1, must be treated like purchase from commercial entities.
15. Comptroller General Decision - B188770 - Surcharge funds for commissary construction are considered appropriated funds. (Fortec)
16. DOD Authorization Bill (FY 1987) - Section 312 - Authority to purchase on a sole source basis, bakery and dairy products produced in AAFES facilities overseas.
17. DOD Authorization Bill (FY1989-90) - Section 324 - Adds laundry and dry cleaning operations to the list of exchange activities that can do work for appropriated funded activities on a reimburseable basis.
18. DOD Authorization Bill (FY1989-90) - Section 325 - Authority to purchase overseas from military exchanges with a limitation of \$50,000 provided the exchange price is considered fair and reasonable.

Appendix C

COMPUTER SYSTEMS INTEGRATION COSTS

===== A DOD STUDY OF MILITARY COMMISSARIES =====

ANDERSEN
CONSULTING
ARTHUR ANDERSEN & CO.

Suite 400
6280 Greensboro Drive
McLean, Virginia 22102
(703) 448-0000

To: Lt. Col. Vincent

From: Steven M. Block

Date: September 13, 1989

Subject: Andersen Consulting Hardware Sizing Models

Van Hitch asked me to develop two additional runs of the DCS/Logistics hardware sizing models for the commissary consolidation using new input for the "purchase orders/day" parameter. Jamey McCabe is on vacation this week but he was able to supply me with his models. All other input parameters for the model are the same as those used for the runs supplied to you last week by Jamey. For these two runs of the model, we input 300 purchase orders per day and 100 purchase orders per day.

For each model, three sections of the output are enclosed. Section A contains the parameters used as input, Section C provides the expected CPU utilizations based on the input parameters and Section E displays the MIPS required for each application group within the DCS/Logistics package. When the model was run with 300 purchase orders per day, it appears that the an IBM 3090-150S would be the appropriate processor while the model with 100 purchase orders per day showed an IBM 3090-100S to be appropriate.

An additional page has been included showing the approximate cost of a representative hardware configuration using the above mainframes.

Please call me at (703) 448-3173 with any questions regarding these models.

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Jones Commissior Conceptual Consolidated Services System 9-SEP-1989		Funding (million\$)		
		Large 3090-600	Medium 3090-300	Small 3090-180
Development				
	Installation, Integration - 7 regions	15.0	15.0	15.0
	Installation, Integration - HQ	3.0	3.0	3.0
Aquisition				
	Mainframes - 7 Regions	71.8	38.9	17.2
	Mainframes - HQ	1.0	1.0	1.0
	Core Software - DCS/Logistics	2.0	2.0	2.0
	INFOREM forecasting software	0.7	0.7	0.7
	NCR POS Polling Software	0.7	0.7	0.7
	Other Application Software	0.7	0.7	0.7
	System Software and Peripherals	17.5	17.5	17.5
Operation (personnel, facilities, telecom)				
Maintenance (hardware, software)				
Disposal		0.0	0.0	0.0
		112.4	79.5	57.8
Number of Purchase Orders Per day*		2500*	1500*	750*

		Funding (millions \$)	
		3090-1505	3090-1005
Development			
	Installation, Integration - 7 regions	15.0	15.0
	Installation, Integration - HQ	3.0	3.0
Aquisition			
	Mainframes - 7 regions	9.2	3.7
	Mainframes - HQ	1.0	1.0
	Core Software - DCS/Logistics	2.0	2.0
	INFOREM forecasting software	0.7	0.7
	NCR POS Polling Software	0.7	0.7
	Other Application Software	0.7	0.7
	System Software and Peripherals	17.5	17.5
Operation (personnel, facilities, telecom)			
Maintenance (hardware, software)			
Disposal		0.0	0.0
Number of Purchase Orders Per day*		49.8	44.3
		500*	100*

Note: For consistency with the earlier models, we have kept all software and peripheral prices the same. We expect a reduction in the volume of purchase orders would decrease the cost of peripherals but quantification of the reduction requires further analysis.

A DOD STUDY OF MILITARY COMMISSARIES

Jones Commission		Funding (million\$)		
Conceptual Consolidated Services System		-----		
9-SEP-1989		Large	Medium	Small
		3090-600	3090-300	3090-180

Development				
Installation, Integration - 7 regions		15.0	15.0	15.0
Installation, Integration - HQ		3.0	3.0	3.0
Aquisition				
Mainframes - 7 Regions		71.8	38.9	17.2
Mainframes - HQ		1.0	1.0	1.0
Core Software - DCS/Logistics		2.0	2.0	2.0
INFOREM forecasting software		0.7	0.7	0.7
NCR POS Polling Software		0.7	0.7	0.7
Other Application Software		0.7	0.7	0.7
System Software and Peripherals		17.5	17.5	17.5
Operation (personnel, facilities, telecom)				
Maintenance (hardware, software)				
Disposal		0.0	0.0	0.0

		112.4	79.5	57.8
		=====		

══════ A DOD STUDY OF MILITARY COMMISSARIES ══════

Jones Commission
Conceptual Consolidated Services System
13-SEP-1989

	Funding (millions \$)	
	3090-1505	3090-1005
Development		
Installation, Integration - 7 regions	15.0	15.0
Installation, Integration - HQ	3.0	3.0
Aquisition		
Mainframes - 7 regions	9.2	3.7
Mainframes - HQ	1.0	1.0
Core Software - DCS/Logistics	2.0	2.0
INFOREM forecasting software	0.7	0.7
NCR POS Polling Software	0.7	0.7
Other Application Software	0.7	0.7
System Software and Peripherals	17.5	17.5
Operation (personnel, facilities, telecom)		
Maintenance (hardware, software)		
Disposal	0.0	0.0
	49.8	44.3

Note: For consistency with the earlier models, we have kept all software and peripheral prices the same. We expect a reduction in the volume of purchase orders would decrease the cost of peripherals but quantification of the reduction requires further analysis.

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

UCS/Logistics

CLIENT : JONES COMMISSION

Version 10.0 Hardware Sizing

13-Sep-89

Applications Installed:

Order Processing:	N (Y/M)
Purchasing:	Y (Y/M)
Accounts Receivable:	Y (Y/M)
Inventory Control:	N (Y/M)
Warehouse Management:	N (Y/M)
Outbound Logistics:	N (Y/M)
Distribution Requirements:	Y (Y/M)
Customer Service Management:	N (Y/M)

Technical Environment:

File Access Method:	3 (1-VSAM, 2-M, 24-DB2)
OS Type:	1 (1-MVS, 1.7-VSE)
On-line Hours/Day:	8
Number of Users:	30

Business Profile:

Number of Customers:	50
Avg. Rsgs/Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	600
Maint. per Day:	600
Avg. # On-Line Pages per Day:	5,000

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics CLIENT : JONES COMMISSION
Version 10.0 Hardware Sizing 13-Sep-85

Purchasing:

Purchase Orders/Day: 300
Purchase Order Lines/Order: 150
% of P.O.s that Become Overdue: 5 %
% Overdue P.O. Lines: 1 %

Warehouse Management:

% of Locations Unavailable: 5 %
% Item/Locs. Counted per Day: 5 %
% Items w/Lots: 10 %
% of Locations: 5 % Mixed item locations
Avg. # Zones per Whse: 15
Avg. Locs./Item: 3
Avg. # Lots/Lot-Cont'd Item: 5
Avg. Locs./Warehouse: 40,000
Avg. Move Methods/Loc: 1 (Not greater than 3)
Avg. Storage Types/Loc: 1 (Not greater than 3)

Outbound Logistics:

Batch Bundling? 1 (Y/N)
of Freight Lanes: 12
Avg. # Bundle Specs per Zone: 2
Avg. # of SOLs per Load: 5,000
Avg. # Pick Paths per Whse: 12
Avg. # Ship Vias per Whse: 3

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

UCS, Logistics

CLIENT : JONES COMMISSION

Version 10.0 Hardware Sizing

13-522-29

Customer Service Management:

1 of 15M Periods: 24

Distribution Requirements Planning:

of Bills of Distribution: 1

Avg. # Whises per Bill of Dist.: 1

I Suggested POs./Day: 2500

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics CLIENT : JONES COMMISSCOM
Version 10.0 Hardware Sizing 13-Sep-89

Applications Installed:

Order Processing:	N (Y/N)
Purchasing:	Y (Y/N)
Accounts Receivable:	Y (Y/N)
Inventory Control:	N (Y/N)
Warehouse Management:	N (Y/N)
Outbound Logistics:	N (Y/N)
Distribution Requirements:	Y (Y/N)
Customer Service Management:	N (Y/N)

Technical Environment:

File Access Method:	3 (1=USAM, 2=>4, 28=DE21)
OS Type:	1 (1=MVS, 1..7=VSE)
On-line Hours/Day:	8
Number of Users:	30

Business Profile:

Number of Customers:	60
Avg. Msgs/Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	500
Maint. per Day:	500
Avg. # On-line Pages per Day:	5,000

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics CLIENT: JONES COMMISSION
Version 10.0 Hardware Sizing 13-Sep-89

of EMail Memos/Day: 90
of Lines/EMail Memo: 10

Order Processing:

Sales Orders/Day: 60
SQL's/Order: 5000
Pick Lines/SQL: 15000
Avg. # Kits/Order: 0
Future Dated Prices: 0

% of SO Lines: 5 Credit/Debit memos
% of SO Lines: 5 BC/BL Lines
% of SO Lines: 5 Immediate Release?
% of SO Lines: 5 Picking Exceptions?
% of SO Lines: 5 Future Orders

Payments/Day: 125 Cash Receipts

Inventory Control:

Transfer Orders/Day: 0
Transfer Order Lines/Order: 0
Pick Lines/SQL: 0
of Receipts per Day: 2500
of Items per Receipt: 150
Putaway Lines per Item: 3000
of Transfers per Day: 0
of Adjustments per Day: 0
% of Rec'd Lines: 5 % Auto 30 Release

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

.....
DCS/Logistics CLIENT : JONES COMMISSION
Version 10.0 Hardware Sizing 13-Sep-89
.....

Purchasing:

Purchase Orders/Day: 300
Purchase Order Lines/Order: 150
% of P.O.s that Became Overdue: 5 %
% Overdue P.O. Lines: 1 %

Warehouse Management:

% of Locations Unavailable: 5 %
% Item/Locs. Counted per Day: 5 %
% Items w/Lots: 10 %
% of Locations: 5 % Mixed item locations
Avg. # Zones per Whse: 15
Avg. Locs./Item: 3
Avg. # Lots/Lot-Entry Item: 5
Avg. Lots./Warehouse: 40,000
Avg. Move Methods/Loc: 1 (Not greater than 3)
Avg. Storage Types/Loc: 1 (Not greater than 3)

Outbound Logistics:

Batch Bundling? 1 (Y/N)
of Freight Lanes: 12
Avg. # Bundle Specs per Zone: 2
Avg. # of SOLs per Load: 5,000
Avg. # Pick Paths per Whse: 10
Avg. # Ship Vias per Whse: 3

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

.....
UCS/Logistics CLIENT : JDRS COMMISSION
Version 10.0 Hardware Sigma 13-Sep-29
.....

Customer Service Management:

of CSM Periods: 24

Distribution Requirements Planning:

of Bills of Distribution: 1
Avg. # Whses per Bill of Dist.: 1
Suggested POs/Day: 2520

SECTION C - FORECASTED CPU UTILIZATION

309-305 CPU 5000 157

6.39 H1FS

Model	MVS JA ESTIMATES			MVS VSE ESTIMATES			Number of Processors	Complex Processor			Processor Rate	Complex MIPS			Processor Rate	Number of Processors	Complex Busy %			Processor Busy %	Processor
				
		
Model	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %	Processor	Complex MIPS	Processor Rate	Number of Processors	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %	Processor	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %	Processor
4301-1	2.00	2.00	1	302%	342%		0.50	0.50	1	0.50	0.50	1	136%	136%		0.50	0.50	1	136%	136%	
4301-2	2.70	2.70	1	253%	253%		0.75	0.75	1	0.75	0.75	1	91%	91%		0.75	0.75	1	91%	91%	
4301-3	4.50	2.40	2	142%	280%		1.20	1.20	2	1.20	1.20	2	57%	57%		1.20	1.20	2	57%	57%	
4301-11	1.30	1.30	1	526%	526%		0.35	0.35	1	0.35	0.35	1	195%	195%		0.35	0.35	1	195%	195%	
4301-12	2.70	2.70	1	253%	253%		1.20	1.20	1	1.20	1.20	1	57%	57%		1.20	1.20	1	57%	57%	
4301-13	3.70	3.70	1	185%	185%		0.88	0.88	1	0.88	0.88	1	77%	77%		0.88	0.88	1	77%	77%	
4301-14	6.50	3.75	2	105%	210%		1.80	1.80	2	1.80	1.80	2	36%	36%		1.80	1.80	2	36%	36%	
4301-21	1.70	1.70	1	402%	402%		2.00	2.00	1	2.00	2.00	1	34%	34%		2.00	2.00	1	34%	34%	
4301-22	2.90	2.90	1	236%	236%		1.80	1.80	1	1.80	1.80	1	36%	36%		1.80	1.80	1	36%	36%	
4301-23	4.80	4.80	1	142%	142%		2.50	2.50	1	2.50	2.50	1	27%	27%		2.50	2.50	1	27%	27%	
4301-24	2.50	4.25	2	20%	16%		1.50	1.50	2	1.50	1.50	2	45%	45%		1.50	1.50	2	45%	45%	
4301-50	3.80	3.80	1	180%	180%		1.50	1.50	1	1.50	1.50	1	42%	42%		1.50	1.50	1	42%	42%	
4301-91	1.80	4.80	1	142%	142%		1.10	1.10	1	1.10	1.10	1	62%	62%		1.10	1.10	1	62%	62%	
4301-92	3.50	4.25	2	80%	16%		1.40	1.40	2	1.40	1.40	2	88%	88%		1.40	1.40	2	88%	88%	
4301-93	3.05	3.05	1	274%	274%		2.00	2.00	1	2.00	2.00	1	31%	31%		2.00	2.00	1	31%	31%	
4301-94	3.75	3.75	1	182%	182%		2.70	2.70	1	2.70	2.70	1	25%	25%		2.70	2.70	1	25%	25%	
4301-95	1.90	3.06	1	177%	177%		4.80	4.80	1	4.80	4.80	1	14%	14%		4.80	4.80	1	14%	14%	
4301-96	1.06	4.06	1	168%	168%		1.30	1.30	1	1.30	1.30	1	52%	52%		1.30	1.30	1	52%	52%	
4301-97	5.64	5.64	1	121%	121%		3.70	3.70	1	3.70	3.70	1	185%	185%		3.70	3.70	1	185%	185%	
4301-98	5.99	5.99	1	114%	114%		6.50	6.50	1	6.50	6.50	1	135%	135%		6.50	6.50	1	135%	135%	
4301-99	6.11	6.11	1	112%	112%		2.90	2.90	1	2.90	2.90	1	170%	170%		2.90	2.90	1	170%	170%	
4301-100	7.48	7.48	1	91%	91%		2.90	2.90	1	2.90	2.90	1	185%	185%		2.90	2.90	1	185%	185%	
4301-101	7.96	7.96	1	86%	86%		2.90	2.90	1	2.90	2.90	1	170%	170%		2.90	2.90	1	170%	170%	
4301-102	8.12	8.12	1	84%	84%		2.90	2.90	1	2.90	2.90	1	170%	170%		2.90	2.90	1	170%	170%	
4301-103	10.20	5.10	2	67%	134%		4.80	4.80	2	4.80	4.80	2	142%	142%		4.80	4.80	2	142%	142%	
4301-104	10.20	5.10	2	67%	134%		8.50	8.50	2	8.50	8.50	2	85%	85%		8.50	8.50	2	85%	85%	

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU UTILIZATIONS

3050-3005 CPU Estimate: 6.84 MIPS

MODEL	MIPS		Processor Rate		Number of Processors	Complex Busy %		Processor Busy %	
	Complex MIPS	Processor Rate	Complex MIPS	Processor Rate		Complex Busy %	Processor Busy %	Complex Busy %	Processor Busy %
3061-Q*	10.50	5.40	10.50	5.40	2	63%	127%	180%	180%
3061-Q*	11.20	5.60	11.20	5.60	2	61%	127%	147%	147%
3061-K	13.50	6.90	13.50	6.90	2	50%	99%	80%	161%
3061-K*	14.60	7.30	14.60	7.30	2	47%	94%		
3061-KA	15.40	7.70	15.40	7.70	2	44%	89%		
3084-Q	23.00	5.75	23.00	5.75	4	30%	119%		
3084-Q*	24.40	6.10	24.40	6.10	4	28%	112%		
3084-Q*	26.00	6.50	26.00	6.50	4	26%	105%		
3090-1005	5.60	5.60	5.60	5.60	1	127%	127%		
3090-120E	7.50	7.50	7.50	7.50	1	91%	91%		
3090-120S	7.50	7.50	7.50	7.50	1	91%	91%		
3090-150	9.60	9.60	9.60	9.60	1	70%	70%		
3090-150E	10.20	10.20	10.20	10.20	1	67%	67%		
3090-150S	11.60	11.60	11.60	11.60	1	59%	59%		
3090-170S	14.00	14.00	14.00	14.00	1	46%	46%		
3090-180	15.40	15.40	15.40	15.40	1	44%	44%		
3090-180E	17.60	17.60	17.60	17.60	1	39%	39%		
3090-180S	22.00	22.00	22.00	22.00	1	31%	31%		
3090-200	27.70	13.85	27.70	13.85	2	25%	49%		
3090-200E	32.00	16.00	32.00	16.00	2	21%	43%		
3090-200S	40.00	20.00	40.00	20.00	2	17%	34%		
3090-250S	22.00	11.00	22.00	11.00	2	31%	62%		
3090-280E	32.00	16.00	32.00	16.00	2	21%	43%		
3090-280S	40.00	20.00	40.00	20.00	2	17%	34%		
3090-300E	44.00	14.67	44.00	14.67	3	16%	47%		
3090-300S	55.70	18.33	55.70	18.33	3	12%	37%		

Note: All MIPS statistics presented here are taken from "The IBM Mainframe Scenario and Residual Value Forecast: Midyear 1989" report produced by the Gartner Group, Inc.

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===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION E - HARDWARE SIZING SUMMARY

AREA	MIPS	Label	DASD Megabytes
----	----	-----	-----
Common Features	1.02	C/F	5,051.50
Order Processing	0.00	O/P	0.00
Purchasing	2.02	PUR	252.55
Accounts Receivable	0.06	A/R	14,058.00
Inventory Control	0.00	I/C	0.00
Warehouse Management	0.00	W/M	0.00
Outbound Logistics	0.00	O/L	0.00
Distribution Requirements	3.74	DRP	1,126.51
Customer Service Mgmt.	N/A	CSM	0.00
	-----		-----
Total:	6.84		Total: 20,496.55

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DES/Logistics CLIENT : JONES COMMISSION
Version 10.0 Hardware Sizing 13-Sep-89

Applications Installed:

Order Processing:	N (Y/N)
Purchasing:	Y (Y/N)
Accounts Receivable:	Y (Y/N)
Inventory Control:	N (Y/N)
Warehouse Management:	N (Y/N)
Outbound Logistics:	N (Y/N)
Distribution Requirements:	Y (Y/N)
Customer Service Management:	N (Y/N)

Technical Environment:

File Access Method:	3 (1=VSAM, 2=Q, 24=CB2)
OS Type:	1 (1=MVS, 1, 2=VS2)
On-line Hours/Day:	B
Number of Users:	30

Business Profile:

Number of Customers:	60
Avg. #pgs./Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	600
Maint. per Day:	600
Avg. # On-line Pages per Day:	5,000

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics

CLIENT : JONES COMMISSION

Version 10.0 Hardware Sizing

89-75-13

of EMail Mems/Day: 20
of Lines/EMail Memo: 10

Under Processing:

Sales Orders/Day:	60
SOL's/Order:	\$300
Pick Lines/SOL:	25000
Avg. # Kits/Order:	0
Future Dated Prices:	0

% of SO Lines:	5 Credit/Debit memo's
% of SO Lines:	5 PG/EL Lines
% of SO Lines:	5 Immediate Release?
% of SO Lines:	5 Picking Exceptions?
% of SO Lines:	5 Future Orders

Payments/Day: 125 Cash Receipts

Inventory Control:

Transfer Orders/Day:	0
Transfer Order Lines/Order:	0
Pick Lines/10L:	0
# of Receipts per Day:	2500
# of Items per Receipt:	150
Putaway Lines per Item:	3000
# of Transfers per Day:	0
# of Adjustments per Day:	0
% of Rec'd Line:	5 % Auto EC Release

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

DCS/Logistics

CLIENT : JONES COMMISSION

Version 10.0 Hardware Sizing

13-Sep-89

Purchasing:

Purchase Orders/Day:	100
Purchase Order Lines/Order:	150
% of P.O.s that become Overdue:	5 %
% Overdue P.O. Lines:	1 %

Warehouse Management:

% of Locations Unavailable:	5 %
% Item/Locs. Counted per Day:	5 %
% Items w/Lots:	10 %
% of Locations:	5 % Mixed item locations
Avg. # Zones per Whse:	15
Avg. Locs./Item:	3
Avg. # Lots/Lot-Cont'd Item:	5
Avg. Locs./Warehouse:	40,000
Avg. Move Methods/Loc:	1 (not greater than 3)
Avg. Storage Types/Loc:	1 (not greater than 3)

Outbound Logistics:

Batch Bundling:	Y (N/A)
# of Freight Lanes:	12
Avg. # Bundle Specs per Zone:	2
Avg. # of SDIs per Load:	5,000
Avg. # Pick Paths per Whse:	10
Avg. # Ship Vias per Whse:	3

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics CLIENT : JONES COMMISSION
Version 10.0 Hardware Sizing 13-Sep-89

Customer Service Management:

of CSN Periods: 24

Distribution Requirements Planning:

of Bills of Distribution: 1
Avg. # Whses per Bill of Dist.: 1
Suggested Plis/Day: 2500

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU UTILIZATIONS

309C-300S CPU Estimate: 3.00 MIPS

WJCL	NVS 2A		DJS USE		Number of Processors	Complex		Processor Rate	Number of Processors	Complex		Processor Busy %
	ESTIMATES	ESTIMATES		MIPS	Busy %			MIPS	Busy %	
WJCL												
4381-1		2.00	2.00		1	1508	1528			0.50	0.50	60%
4381-2		2.70	2.70		3	1116	1116			0.75	0.75	40%
4381-3		4.00	2.00		2	636	1256			1.20	1.20	250%
4381-11		1.30	1.30			2316	2316			0.35	0.35	81%
4381-17		2.70	2.70			1116	1116			1.20	1.20	250%
4381-13		3.70	3.70		1	816	816			0.66	0.66	341%
4381-14		6.50	3.25		2	466	926			1.00	1.00	16%
4381-21		1.70	1.70		1	1766	1766			2.00	2.00	150%
4381-22		2.90	2.90		1	1036	1336			1.80	1.80	16%
4381-24		4.00	4.00		1	636	636			2.50	2.50	170%
4381-23		8.50	4.25		2	356	716			1.50	1.50	200%
4381-25		3.00	3.00		1	796	796			1.60	1.60	188%
4381-26		4.80	4.80		1	636	636			1.10	1.10	27%
4381-27		8.50	4.25		2	356	716			1.40	1.40	21%
4381-28		3.05	3.05		1	966	966			2.00	2.00	150%
4381-29		3.75	3.75		1	806	806			2.70	2.70	111%
4381-30		3.96	3.96		1	756	756			2.40	2.40	63%
4381-31		4.06	4.06		1	746	746			1.30	1.30	231%
4381-32		5.64	5.64		1	536	536			2.70	2.70	111%
4381-33		5.99	5.99		1	506	506			3.70	3.70	91%
4381-34		6.11	6.11		1	496	496			6.50	6.50	46%
4381-35		7.48	7.48		1	406	406			1.70	1.70	176%
4381-36		7.96	7.96		1	386	386			2.90	2.90	103%
4381-37		8.12	8.12		1	376	376			4.80	4.80	63%
4381-38		10.20	5.10		2	296	596			8.50	8.50	35%
4381-39		10.20	5.10		2	296	596					

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU UTILIZATIONS

3050-3005 CPU Estimate: 3.00 MIPS

MIPS 1A		MIPS 1B		MIPS 1C		MIPS 1D		MIPS 1E		MIPS 1F		MIPS 1G		MIPS 1H		MIPS 1I		MIPS 1J		MIPS 1K		MIPS 1L		MIPS 1M		MIPS 1N		MIPS 1O		MIPS 1P		MIPS 1Q		MIPS 1R		MIPS 1S		MIPS 1T		MIPS 1U		MIPS 1V		MIPS 1W		MIPS 1X		MIPS 1Y		MIPS 1Z		MIPS 1AA		MIPS 1AB		MIPS 1AC		MIPS 1AD		MIPS 1AE		MIPS 1AF		MIPS 1AG		MIPS 1AH		MIPS 1AI		MIPS 1AJ		MIPS 1AK		MIPS 1AL		MIPS 1AM		MIPS 1AN		MIPS 1AO		MIPS 1AP		MIPS 1AQ		MIPS 1AR		MIPS 1AS		MIPS 1AT		MIPS 1AU		MIPS 1AV		MIPS 1AW		MIPS 1AX		MIPS 1AY		MIPS 1AZ		MIPS 1BA		MIPS 1BB		MIPS 1BC		MIPS 1BD		MIPS 1BE		MIPS 1BF		MIPS 1BG		MIPS 1BH		MIPS 1BI		MIPS 1BJ		MIPS 1BK		MIPS 1BL		MIPS 1BM		MIPS 1BN		MIPS 1BO		MIPS 1BP		MIPS 1BQ		MIPS 1BR		MIPS 1BS		MIPS 1BT		MIPS 1BU		MIPS 1BV		MIPS 1BW		MIPS 1BX		MIPS 1BY		MIPS 1BZ		MIPS 1CA		MIPS 1CB		MIPS 1CC		MIPS 1CD		MIPS 1CE		MIPS 1CF		MIPS 1CG		MIPS 1CH		MIPS 1CI		MIPS 1CJ		MIPS 1CK		MIPS 1CL		MIPS 1CM		MIPS 1CN		MIPS 1CO		MIPS 1CP		MIPS 1CQ		MIPS 1CR		MIPS 1CS		MIPS 1CT		MIPS 1CU		MIPS 1CV		MIPS 1CW		MIPS 1CX		MIPS 1CY		MIPS 1CZ		MIPS 1DA		MIPS 1DB		MIPS 1DC		MIPS 1DD		MIPS 1DE		MIPS 1DF		MIPS 1DG		MIPS 1DH		MIPS 1DI		MIPS 1DJ		MIPS 1DK		MIPS 1DL		MIPS 1DM		MIPS 1DN		MIPS 1DO		MIPS 1DP		MIPS 1DQ		MIPS 1DR		MIPS 1DS		MIPS 1DT		MIPS 1DU		MIPS 1DV		MIPS 1DW		MIPS 1DX		MIPS 1DY		MIPS 1DZ		MIPS 1EA		MIPS 1EB		MIPS 1EC		MIPS 1ED		MIPS 1EE		MIPS 1EF		MIPS 1EG		MIPS 1EH		MIPS 1EI		MIPS 1EJ		MIPS 1EK		MIPS 1EL		MIPS 1EM		MIPS 1EN		MIPS 1EO		MIPS 1EP		MIPS 1EQ		MIPS 1ER		MIPS 1ES		MIPS 1ET		MIPS 1EU		MIPS 1EV		MIPS 1EW		MIPS 1EX		MIPS 1EY		MIPS 1EZ		MIPS 1FA		MIPS 1FB		MIPS 1FC		MIPS 1FD		MIPS 1FE		MIPS 1FF		MIPS 1FG		MIPS 1FH		MIPS 1FI		MIPS 1FJ		MIPS 1FK		MIPS 1FL		MIPS 1FM		MIPS 1FN		MIPS 1FO		MIPS 1FP		MIPS 1FQ		MIPS 1FR		MIPS 1FS		MIPS 1FT		MIPS 1FU		MIPS 1FV		MIPS 1FW		MIPS 1FX		MIPS 1FY		MIPS 1FZ		MIPS 1GA		MIPS 1GB		MIPS 1GC		MIPS 1GD		MIPS 1GE		MIPS 1GF		MIPS 1GG		MIPS 1GH		MIPS 1GI		MIPS 1GJ		MIPS 1GK		MIPS 1GL		MIPS 1GM		MIPS 1GN		MIPS 1GO		MIPS 1GP		MIPS 1GQ		MIPS 1GR		MIPS 1GS		MIPS 1GT		MIPS 1GU		MIPS 1GV		MIPS 1GW		MIPS 1GX		MIPS 1GY		MIPS 1GZ		MIPS 1HA		MIPS 1HB		MIPS 1HC		MIPS 1HD		MIPS 1HE		MIPS 1HF		MIPS 1HG		MIPS 1HH		MIPS 1HI		MIPS 1HJ		MIPS 1HK		MIPS 1HL		MIPS 1HM		MIPS 1HN		MIPS 1HO		MIPS 1HP		MIPS 1HQ		MIPS 1HR		MIPS 1HS		MIPS 1HT		MIPS 1HU		MIPS 1HV		MIPS 1HW		MIPS 1HX		MIPS 1HY		MIPS 1HZ		MIPS 1IA		MIPS 1IB		MIPS 1IC		MIPS 1ID		MIPS 1IE		MIPS 1IF		MIPS 1IG		MIPS 1IH		MIPS 1IJ		MIPS 1IK		MIPS 1IL		MIPS 1IM		MIPS 1IN		MIPS 1IO		MIPS 1IP		MIPS 1IQ		MIPS 1IR		MIPS 1IS		MIPS 1IT		MIPS 1IU		MIPS 1IV		MIPS 1IW		MIPS 1IX		MIPS 1IY		MIPS 1IZ		MIPS 1JA		MIPS 1JB		MIPS 1JC		MIPS 1JD		MIPS 1JE		MIPS 1JF		MIPS 1JG		MIPS 1JH		MIPS 1JI		MIPS 1JJ		MIPS 1JK		MIPS 1JL		MIPS 1JM		MIPS 1JN		MIPS 1JO		MIPS 1JP		MIPS 1JQ		MIPS 1JR		MIPS 1JS		MIPS 1JT		MIPS 1JU		MIPS 1JV		MIPS 1JW		MIPS 1JX		MIPS 1JY		MIPS 1JZ		MIPS 1KA		MIPS 1KB		MIPS 1KC		MIPS 1KD		MIPS 1KE		MIPS 1KF		MIPS 1KG		MIPS 1KH		MIPS 1KI		MIPS 1KJ		MIPS 1KK		MIPS 1KL		MIPS 1KM		MIPS 1KN		MIPS 1KO		MIPS 1KP		MIPS 1KQ		MIPS 1KR		MIPS 1KS		MIPS 1KT		MIPS 1KU		MIPS 1KV		MIPS 1KW		MIPS 1KX		MIPS 1KY		MIPS 1KZ		MIPS 1LA		MIPS 1LB		MIPS 1LC		MIPS 1LD		MIPS 1LE		MIPS 1LF		MIPS 1LG		MIPS 1LH		MIPS 1LI		MIPS 1LJ		MIPS 1LK		MIPS 1LM		MIPS 1LN		MIPS 1LO		MIPS 1LP		MIPS 1LQ		MIPS 1LR		MIPS 1LS		MIPS 1LT		MIPS 1LU		MIPS 1LV		MIPS 1LW		MIPS 1LX		MIPS 1LY		MIPS 1LZ		MIPS 1MA		MIPS 1MB		MIPS 1MC		MIPS 1MD		MIPS 1ME		MIPS 1MF		MIPS 1MG		MIPS 1MH		MIPS 1MI		MIPS 1MJ		MIPS 1MK		MIPS 1ML		MIPS 1MM		MIPS 1MN		MIPS 1MO		MIPS 1MP		MIPS 1MQ		MIPS 1MR		MIPS 1MS		MIPS 1MT		MIPS 1MU		MIPS 1MV		MIPS 1MW		MIPS 1MX		MIPS 1MY		MIPS 1MZ		MIPS 1NA		MIPS 1NB		MIPS 1NC		MIPS 1ND		MIPS 1NE		MIPS 1NF		MIPS 1NG		MIPS 1NH		MIPS 1NI		MIPS 1NJ		MIPS 1NK		MIPS 1NL		MIPS 1NM		MIPS 1NO		MIPS 1NP		MIPS 1NQ		MIPS 1NR		MIPS 1NS		MIPS 1NT		MIPS 1NU		MIPS 1NV		MIPS 1NW		MIPS 1NX		MIPS 1NY		MIPS 1NZ		MIPS 1OA		MIPS 1OB		MIPS 1OC		MIPS 1OD		MIPS 1OE		MIPS 1OF		MIPS 1OG		MIPS 1OH		MIPS 1OI		MIPS 1OJ		MIPS 1OK		MIPS 1OL		MIPS 1OM		MIPS 1ON		MIPS 1OO		MIPS 1OP		MIPS 1OQ		MIPS 1OR		MIPS 1OS		MIPS 1OT		MIPS 1OU		MIPS 1OV		MIPS 1OW		MIPS 1OX		MIPS 1OY		MIPS 1OZ		MIPS 1PA		MIPS 1PB		MIPS 1PC		MIPS 1PD		MIPS 1PE		MIPS 1PF		MIPS 1PG		MIPS 1PH		MIPS 1PI		MIPS 1PJ		MIPS 1PK		MIPS 1PL		MIPS 1PM		MIPS 1PN		MIPS 1PO		MIPS 1PP		MIPS 1PQ		MIPS 1PR		MIPS 1PS		MIPS 1PT		MIPS 1PU		MIPS 1PV		MIPS 1PW		MIPS 1PX		MIPS 1PY		MIPS 1PZ		MIPS 1QA		MIPS 1QB		MIPS 1QC		MIPS 1QD		MIPS 1QE		MIPS 1QF		MIPS 1QG		MIPS 1QH		MIPS 1QI		MIPS 1QJ		MIPS 1QK		MIPS 1QL		MIPS 1QM		MIPS 1QN		MIPS 1QO		MIPS 1QP		MIPS 1QQ		MIPS 1QR		MIPS 1QS		MIPS 1QT		MIPS 1QU		MIPS 1QV		MIPS 1QW		MIPS 1QX		MIPS 1QY		MIPS 1QZ		MIPS 1RA		MIPS 1RB		MIPS 1RC		MIPS 1RD		MIPS 1RE		MIPS 1RF		MIPS 1RG		MIPS 1RH		MIPS 1RI		MIPS 1RJ		MIPS 1RK		MIPS 1RL		MIPS 1RM		MIPS 1RN		MIPS 1RO		MIPS 1RP		MIPS 1RQ		MIPS 1RR		MIPS 1RS		MIPS 1RT		MIPS 1RU		MIPS 1RV		MIPS 1RW		MIPS 1RX		MIPS 1RY		MIPS 1RZ		MIPS 1SA		MIPS 1SB		MIPS 1SC		MIPS 1SD		MIPS 1SE		MIPS 1SF		MIPS 1SG		MIPS 1SH		MIPS 1SI		MIPS 1SJ		MIPS 1SK		MIPS 1SL		MIPS 1SM		MIPS 1SN		MIPS 1SO		MIPS 1SP		MIPS 1SQ		MIPS 1SR		MIPS 1SS		MIPS 1ST		MIPS 1SU		MIPS 1SV		MIPS 1SW		MIPS 1SX		MIPS 1SY		MIPS 1SZ		MIPS 1TA		MIPS 1TB		MIPS 1TC		MIPS 1TD		MIPS 1TE		MIPS 1TF		MIPS 1TG		MIPS 1TH		MIPS 1TI		MIPS 1TJ		MIPS 1TK		MIPS 1TL		MIPS 1TM		MIPS 1TN		MIPS 1TO		MIPS 1TP		MIPS 1TQ		MIPS 1TR		MIPS 1TS		MIPS 1TT		MIPS 1TU		MIPS 1TV		MIPS 1TW		MIPS 1TX		MIPS 1TY		MIPS 1TZ		MIPS 1UA		MIPS 1UB		MIPS 1UC		MIPS 1UD		MIPS 1UE		MIPS 1UF		MIPS 1UG		MIPS 1UH		MIPS 1UI		MIPS 1UJ		MIPS 1UK		MIPS 1UL		MIPS 1UM		MIPS 1UN		MIPS 1UO		MIPS 1UP		MIPS 1UQ		MIPS 1UR		MIPS 1US		MIPS 1UT		MIPS 1UU		MIPS 1UV		MIPS 1UW		MIPS 1UX		MIPS 1UY		MIPS 1UZ		MIPS 1VA		MIPS 1VB		MIPS 1VC		MIPS 1VD		MIPS 1VE		MIPS 1VF		MIPS 1VG		MIPS 1VH		MIPS 1VI		MIPS 1VJ		MIPS 1VK		MIPS 1VL		MIPS 1VM		MIPS 1VN		MIPS 1VO		MIPS 1VP		MIPS 1VQ		MIPS 1VR		MIPS 1VS		MIPS 1VT		MIPS 1VU		MIPS 1VV		MIPS 1VW		MIPS 1VX		MIPS 1VY		MIPS 1VZ		MIPS 1WA		MIPS 1WB		MIPS 1WC		MIPS 1WD		MIPS 1WE		MIPS 1WF		MIPS 1WG		MIPS 1WH		MIPS 1WI		MIPS 1WJ		MIPS 1WK		MIPS 1WL		MIPS 1WM		MIPS 1WN		MIPS 1WO		MIPS 1WP		MIPS 1WQ		MIPS 1WR		MIPS 1WS		MIPS 1WT		MIPS 1WU		MIPS 1WV		MIPS 1WW		MIPS 1WX		MIPS 1WY		MIPS 1WZ		MIPS 1XA		MIPS 1XB		MIPS 1XC		MIPS 1XD		MIPS 1XE		MIPS 1XF		MIPS 1XG		MIPS 1XH		MIPS 1XI		MIPS 1XJ		MIPS 1XK		MIPS 1XL		MIPS 1XM		MIPS 1XN		MIPS 1XO		MIPS 1XP		MIPS 1XQ		MIPS 1XR		MIPS 1XS		MIPS 1XT		MIPS 1XU		MIPS 1XV		MIPS 1XW		MIPS 1XX		MIPS 1XY		MIPS 1XZ		MIPS 1YA		MIPS 1YB		MIPS 1YC		MIPS 1YD		MIPS 1YE		MIPS 1YF		MIPS 1YG		MIPS 1YH		MIPS 1YI		MIPS 1YJ		MIPS 1YK		MIPS 1YL		MIPS 1YM		MIPS 1YN		MIPS 1YO		MIPS 1YP		MIPS 1YQ		MIPS 1YR		MIPS 1YS		MIPS 1YT		MIPS 1YU		MIPS 1YV		MIPS 1YW		MIPS 1YX		MIPS 1YY		MIPS 1YZ		MIPS 1ZA		MIPS 1ZB		MIPS 1ZC		MIPS 1ZD		MIPS 1ZE		MIPS 1ZF		MIPS 1ZG		MIPS 1ZH		MIPS 1ZI		MIPS 1ZJ		MIPS 1ZK		MIPS 1ZL		MIPS 1ZM		MIPS 1ZN		MIPS 1ZO		MIPS 1ZP		MIPS 1ZQ		MIPS 1ZR		MIPS 1ZS		MIPS 1ZT		MIPS 1ZU		MIPS 1ZV		MIPS 1ZW		MIPS 1ZX		MIPS 1ZY		MIPS 1ZZ		MIPS 1Aa		MIPS 1Ab		MIPS 1Ac		MIPS 1Ad		MIPS 1Ae		MIPS 1Af		MIPS 1Ag		MIPS 1Ah		MIPS 1Ai		MIPS 1Aj		MIPS 1Ak		MIPS 1Al		MIPS 1Am		MIPS 1An		MIPS 1Ao		MIPS 1Ap		MIPS 1Aq		MIPS 1Ar		MIPS 1As		MIPS 1At		MIPS 1Au		MIPS 1Av		MIPS 1Aw		MIPS 1Ax		MIPS 1Ay		MIPS 1Az		MIPS 1Ba		MIPS 1Bb		MIPS 1Bc		MIPS 1Bd		MIPS 1Be		MIPS 1Bf		MIPS 1Bg		MIPS 1Bh		MIPS 1Bi		MIPS 1Bj		MIPS 1Bk		MIPS 1Bl		MIPS 1Bm		MIPS 1Bn		MIPS 1Bo		MIPS 1Bp		MIPS 1Bq		MIPS 1Br		MIPS 1Bs		MIPS 1Bt		MIPS 1Bu		MIPS 1Bv		MIPS 1Bw		MIPS 1Bx		MIPS 1By		MIPS 1Bz		MIPS 1Ca		MIPS 1Cb		MIPS 1Cc		MIPS 1Cd		MIPS 1Ce		MIPS 1Cf		MIPS 1Cg		MIPS 1Ch		MIPS 1Ci		MIPS 1Cj		MIPS 1Ck		MIPS 1Cl		MIPS 1Cm		MIPS 1Cn		MIPS 1Co		MIPS 1Cp		MIPS 1Cq		MIPS 1Cr		MIPS 1Cs		MIPS 1Ct		MIPS 1Cu		MIPS 1Cv		MIPS 1Cw		MIPS 1Cx		MIPS 1Cy		MIPS 1Cz		MIPS 1Da		MIPS 1Db		MIPS 1Dc		MIPS 1Dd		MIPS 1De		MIPS 1Df		MIPS 1Dg		MIPS 1Dh		MIPS 1Di		MIPS 1Dj		MIPS 1Dk		MIPS 1Dl		MIPS 1Dm		MIPS 1Dn		MIPS 1Do		MIPS 1Dp		MIPS 1Dq		MIPS 1Dr		MIPS 1Ds		MIPS 1Dt		MIPS 1Du		MIPS 1Dv		MIPS 1Dw		MIPS 1Dx		MIPS 1Dy		MIPS 1Dz		MIPS 1Ea		MIPS 1Eb		MIPS 1Ec		MIPS 1Ed		MIPS 1Ee		MIPS 1Ef		MIPS 1Eg		MIPS 1Eh		MIPS 1Ei		MIPS 1Ej		MIPS 1Ek		MIPS 1El		MIPS 1Em		MIPS 1En		MIPS 1Eo		MIPS 1Ep		MIPS 1Eq		MIPS 1Er		MIPS 1Es		MIPS 1Et		MIPS 1Eu		MIPS 1Ev		MIPS 1Ew		MIPS 1Ex		MIPS 1Ey		MIPS 1Ez		MIPS 1Fa		MIPS 1Fb		MIPS 1Fc		MIPS 1Fd		MIPS 1Fe		MIPS 1Ff		MIPS 1Fg		MIPS 1Fh		MIPS 1Fi		MIPS 1Fj		MIPS 1Fk		MIPS 1Fl		MIPS 1Fm		MIPS 1Fn		MIPS 1Fo		MIPS 1Fp		MIPS 1Fq		MIPS 1Fr		MIPS 1Fs		MIPS 1Ft		MIPS 1Fu		MIPS 1Fv		MIPS 1Fw		MIPS 1Fx		MIPS 1Fy		MIPS 1Fz		MIPS 1Ga		MIPS 1Gb		MIPS 1Gc		MIPS 1Gd		MIPS 1Ge		MIPS 1Gf		MIPS 1Gg		MIPS 1Gh		MIPS 1Gi		MIPS 1Gj		MIPS 1Gk		MIPS 1Gl		MIPS 1Gm		MIPS 1Gn		MIPS 1Go		MIPS 1Gp		MIPS 1Gq		MIPS 1Gr		MIPS 1Gs		MIPS 1Gt		MIPS 1Gu		MIPS 1Gv		MIPS 1Gw		MIPS 1Gx		MIPS 1Gy		MIPS 1Gz		MIPS 1Ha		MIPS 1Hb		MIPS 1Hc		MIPS 1Hd		MIPS 1He		MIPS 1Hf		MIPS 1Hg		MIPS 1Hh		MIPS 1Hi		MIPS 1Hj		MIPS 1Hk		MIPS 1Hl		MIPS 1Hm		MIPS 1Hn		MIPS 1Ho		MIPS 1Hp		MIPS 1Hq		MIPS 1Hr		MIPS 1Hs		MIPS 1Ht		MIPS 1Hu		MIPS 1Hv		MIPS 1Hw		MIPS 1Hx		MIPS 1Hy		MIPS 1Hz		MIPS 1Ia		MIPS 1Ib		MIPS 1Ic		MIPS 1Id		MIPS 1Ie		MIPS 1If		MIPS 1Ig		MIPS 1Ih		MIPS 1Ii		MIPS 1Ij		MIPS 1Ik		MIPS 1Il		MIPS 1Im		MIPS 1In		MIPS 1Io		MIPS 1Ip		MIPS 1Iq		MIPS 1Ir		MIPS 1Is		MIPS 1It		MIPS 1Iu		MIPS 1Iv		MIPS 1Iw		MIPS 1Ix		MIPS 1Iy		MIPS 1Iz		MIPS 1Ja	
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===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION C - FORECASTED CPU UTILIZATIONS

3030-300S CPU Estimate: 3.00 MIPS

MODEL	MVS XL		DOS VSE		Complex MIPS	Processor Rate	Number of Processors	Complex Processor		Processor Busy %	Processor Busy %
	ESTIMATES	*****	ESTIMATES	*****				Busy %	Busy %		
3090-350S					53.00	17.67	3	64	17%		
3090-400					50.00	17.50	4	64	24%		
3090-400L					57.00	14.25	4	54	21%		
3090-400S					74.00	16.50	4	48	16%		
3090-500E					66.00	13.20	5	54	23%		
3090-500S					90.00	18.00	5	36	17%		
3090-600E					77.00	12.83	6	44	23%		
3090-600S					105.00	17.50	6	34	17%		

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION E - HARDWARE SIZING SUMMARY

AREA	MIPS	Label	DASC Megabytes
Common Features	1.02	C/F	4,750.47
Order Processing	0.00	O/P	0.00
Purchasing	0.67	PUR	87.52
Accounts Receivable	0.06	A/R	11,058.00
Inventory Control	0.00	I/C	0.00
Warehouse Management	0.00	W/M	0.00
Outbound Logistics	0.00	O/L	0.00
Distribution Requirements	1.25	DRF	1,126.91
Customer Service Mgmt.	N/A	CSM	0.00
Total:	3.00		26,022.89

===== A DOD STUDY OF MILITARY COMMISSARIES =====

TO: Lt. Colonel Vincent
FROM: James McCabe, Andersen Consulting
DATE: September 9, 1989

REGARDING: Support Documentation for yesterdays briefing

The sizing material to support our conclusions of yesterdays meeting is attached. Please feel free to contact Van Hitch, Bill Neil or myself at anytime. The main number for Andersen Consulting in Washington is 862-3333. I can be reached this weekend and Monday, at work at 448-3167. Next week please call the receptionist at 862-3333.

In regard to the functionality of the POS polling that we talked about. I discussed this with a couple of consultants from different offices, one involved in the Safeway project. They confirmed your opinion that POS polling is a standard function, especially for NCR. The most likely package is NCD's own package. I included an estimated COTS package price in the costing spreadsheet which is also included. The integration of this COTS package should not significantly add to the development/integration price.

I should be here both days this weekend.

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

DCS/Logistics

Version 10.0 Hardware Sizing

CLIENT : JONES COMMISSION

09-Sep-89

Applications Installed:

Order Processing:	N (Y/N)
Purchasing:	Y (Y/N)
Accounts Receivable:	Y (Y/N)
Inventory Control:	N (Y/N)
Warehouse Management:	N (Y/N)
Outbound Logistics:	N (Y/N)
Distribution Requirements:	Y (Y/N)
Customer Service Management:	N (Y/N)

Technical Environment:

File Access Method:	3 (1=VSAM,2->4.24=DB2)
OS Type:	1 (1=MVS,1.7=VSE)
On-line Hours/Day:	8
Number of Users:	30

Business Profile:

Number of Customers:	60
Avg. Msgs/Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	600
Maint. per Day:	600
Avg. # On-Line Pages per Day:	5,000
# of EMail Memos/Day:	90
# of Lines/EMail Memo:	10

Order Processing:

Sales Orders/Day:	60
SOL's/Order:	5000
Pick Lines/SOL:	7500
Avg. # Kits/Order:	0
Future Dated Prices:	0
Z of SO Lines:	5 Credit/Debit memos
Z of SO Lines:	5 SO/BL lines
Z of SO Lines:	5 Immediate Release?
Z of SO Lines:	5 Picking Exceptions?
Z of SO Lines:	5 Future Orders
Payments/Day:	125 Cash Receipts

Inventory Control:

Transfer Orders/Day:	0
Transfer Order Lines/Order:	0
Pick Lines/TOL:	0
# of Receipts per Day:	2500
# of Items per Receipt:	150

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION A - CLIENT DATA

DCS/Logistics

CLIENT : JONES COMMISSION

Version 10.0 Hardware Sizing

09-Sep-89

Putaway Lines per Item: 300
of Transfers per Day: 0
of Adjustments per Day: 0
% of Rec'd Line: 5 % Auto BO Release

Purchasing:

Purchase Orders/Day: 2500
Purchase Order Lines/Order: 150
% of P.O.s that Become Overdue: 5 %
% Overdue P.O. Lines: 1 %

Warehouse Management:

% of Locations Unavailable: 5 %
% Item/Locs. Counted per Day: 5 %
% Items w/Lots: 10 %
% of Locations: 5 % Mixed item locations
Avg. # Zones per Whse: 15
Avg. Locs/Item: 3
Avg. # Lots/Lot-Cntrl'd Item: 5
Avg. Locs./Warehouse: 40,000
Avg. Move Methods/Loc: 1 (Not greater than 3)
Avg. Storage Types/Loc: 1 (Not greater than 3)

Outbound Logistics:

Batch Bundling? Y (Y/N)
of Freight Lanes: 12
Avg. # Bundle Specs per Zone: 2
Avg. # of SOLs per Load: 5,000
Avg. # Pick Paths per Whse: 10
Avg. # Ship Vias per Whse: 3

Customer Service Management:

% of CSM Periods: 24

Distribution Requirements Planning:

of Bills of Distribution: 1
Avg. # Whses per Bill of Dist.: 1
Suggested POs/Day: 2500
Suggested TOs/Day: 0
% of Items Needing Gross Req. Adj.: 5 %

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU

CPU Estimate: 49.02 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy Z	Processor Busy Z
4381-1	2.00	2.00	1	2451Z	2451Z
4381-2	2.70	2.70	1	1816Z	1816Z
4381-3	4.80	2.40	2	1021Z	2043Z
4381-11	1.30	1.30	1	3771Z	3771Z
4381-12	2.70	2.70	1	1816Z	1816Z
4381-13	3.70	3.70	1	1325Z	1325Z
4381-14	6.50	3.25	2	754Z	1508Z
4381-21	1.70	1.70	1	2884Z	2884Z
4381-22	2.90	2.90	1	1690Z	1690Z
4381-23	4.80	4.80	1	1021Z	1021Z
4381-24	8.50	4.25	2	577Z	1153Z
4381-90	3.80	3.80	1	1290Z	1290Z
4381-91	4.80	4.80	1	1021Z	1021Z
4381-92	8.50	4.25	2	577Z	1153Z
3083-CX	3.05	3.05	1	1607Z	1607Z
3083-E	3.75	3.75	1	1307Z	1307Z
3083-E*	3.98	3.98	1	1232Z	1232Z
3083-EX	4.06	4.06	1	1207Z	1207Z
3083-B	5.64	5.64	1	869Z	869Z
3083-B*	5.99	5.99	1	818Z	818Z
3083-BX	6.11	6.11	1	802Z	802Z
3083-J	7.48	7.48	1	655Z	655Z
3083-J*	7.96	7.96	1	616Z	616Z
3083-JX	8.12	8.12	1	604Z	604Z
3081-D	10.20	5.10	2	481Z	961Z
3081-G	10.20	5.10	2	481Z	961Z
3081-G*	10.80	5.40	2	454Z	908Z
3081-GX	11.20	5.60	2	438Z	875Z
3081-K	13.80	6.90	2	355Z	710Z
3081-K*	14.60	7.30	2	336Z	672Z
3081-KX	15.40	7.70	2	318Z	637Z
3084-Q	23.00	5.75	4	213Z	853Z
3084-Q*	24.40	6.10	4	201Z	804Z
3084-QX	26.00	6.50	4	189Z	754Z
3090-100S	5.60	5.60	1	875Z	875Z
3090-120E	7.50	7.50	1	654Z	654Z
3090-120S	7.50	7.50	1	654Z	654Z
3090-150	9.80	9.80	1	500Z	500Z
3090-150E	10.20	10.20	1	481Z	481Z
3090-150S	11.60	11.60	1	423Z	423Z
3090-170S	14.80	14.80	1	331Z	331Z
3090-180	15.40	15.40	1	318Z	318Z
3090-180E	17.60	17.60	1	279Z	279Z
3090-180S	22.00	22.00	1	223Z	223Z
3090-200	27.70	13.85	2	177Z	354Z
3090-200E	32.00	16.00	2	153Z	306Z
3090-200S	40.00	20.00	2	123Z	245Z
3090-250S	22.00	11.00	2	223Z	446Z
3090-280E	32.00	16.00	2	153Z	306Z
3090-280S	40.00	20.00	2	123Z	245Z
3090-300E	44.00	14.67	3	111Z	334Z
3090-300S	55.00	18.33	3	89Z	267Z

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION C - FORECASTED CPU

CPU Estimate: 49.02 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %
=====	=====	=====	=====	=====	=====
3090-380S	53.00	17.67	3	92%	277%
3090-400	50.00	12.50	4	98%	392%
3090-400E	57.00	14.25	4	86%	344%
3090-400S	74.00	18.50	4	66%	265%
3090-500E	66.00	13.20	5	74%	371%
3090-500S	90.00	18.00	5	54%	272%
3090-600E	77.00	12.83	6	64%	382%
3090-600S	105.00	17.50	6	47%	280%

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION E - HARDWARE SIZING SUMMARY

AREA	MIPS	Label	DASD Megabytes
=====	=====	=====	=====
Common Features	1.02	C/F	8,362.87
Order Processing	0.00	O/P	0.00
Purchasing	16.81	PUR	2,187.90
Accounts Receivable	0.05	A/R	14,058.00
Inventory Control	0.00	I/C	0.00
Warehouse Management	0.00	W/M	0.00
Outbound Logistics	0.00	O/L	0.00
Distribution Requirements	31.13	DRP	1,126.91
Customer Service Mgmt.	N/A	CSM	0.00
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Total:	49.02		Total: 25,735.68

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

DCS/Logistics

Version 10.0 Hardware Sizing

CLIENT : JONES COMMISSION

09-Sep-89

Applications Installed:

Order Processing:	N (Y/N)
Purchasing:	Y (Y/N)
Accounts Receivable:	Y (Y/N)
Inventory Control:	N (Y/N)
Warehouse Management:	N (Y/N)
Outbound Logistics:	N (Y/N)
Distribution Requirements:	Y (Y/N)
Customer Service Management:	N (Y/N)

Technical Environment:

File Access Method:	3 (1=VSAM, 2->4.24=DB2)
OS Type:	1 (1=MVS, 1.7=VSE)
On-line Hours/Day:	8
Number of Users:	30

Business Profile:

Number of Customers:	60
Avg. Msgs/Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	600
Maint. per Day:	600
Avg. # On-Line Pages per Day:	5,000
# of EMail Memos/Day:	90
# of Lines/EMail Memo:	10

Order Processing:

Sales Orders/Day:	50
SOL's/Order:	5000
Pick Lines/SOL:	7500
Avg. # Kits/Order:	0
Future Dated Prices:	0
Z of SO Lines:	5 Credit/Debit memos
Z of SO Lines:	5 BO/BL lines
Z of SO Lines:	5 Immediate Release?
Z of SO Lines:	5 Picking Exceptions?
Z of SO Lines:	5 Future Orders
Payments/Day:	75 Cash Receipts

Inventory Control:

Transfer Orders/Day:	0
Transfer Order Lines/Order:	0
Pick Lines/TOL:	0
# of Receipts per Day:	2500
# of Items per Receipt:	150

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

DCS/Logistics

Version 10.0 Hardware Sizing

CLIENT : JONES COMMISSION

09-Sep-89

Putaway Lines per Item:	300	
# of Transfers per Day:	0	
# of Adjustments per Day:	0	
% of Rec'd Line:	5	% Auto BO Release

Purchasing:

Purchase Orders/Day:	1500
Purchase Order Lines/Order:	150
% of P.O.s that Become Overdue:	5 %
% Overdue P.O. Lines:	1 %

Warehouse Management:

% of Locations Unavailable:	5	%	
% Item/Locs. Counted per Day:	5	%	
% Items w/Lots:	10	%	
% of Locations:	5	%	Mixed item locations
Avg. # Zones per Whse:	15		
Avg. Locs/Item:	3		
Avg. # Lots/Lot-Cntrl'd Item:	5		
Avg. Locs./Warehouse:	40,000		
Avg. Move Methods/Loc:	1		(Not greater than 3)
Avg. Storage Types/Loc:	1		(Not greater than 3)

Outbound Logistics:

Batch Bundling?	Y (Y/N)
# of Freight Lanes:	12
Avg. # Bundle Specs per Zone:	2
Avg. # of SOLs per Load:	5,000
Avg. # Pick Paths per Whse:	10
Avg. # Ship Vias per Whse:	3

Customer Service Management:

of CSM Periods: 24

Distribution Requirements Planning:

# of Bills of Distribution:	1
Avg. # Whses per Bill of Dist.:	1
# Suggested POs/Day:	2500
# Suggested TOs/Day:	0
% of Items Needing Gross Req. Adj.:	5 %

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU

CPU Estimate: 29.82 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy Z	Processor Busy Z
4381-1	2.00	2.00	1	1491Z	1491Z
4381-2	2.70	2.70	1	1105Z	1105Z
4381-3	4.80	2.40	2	621Z	1243Z
4381-11	1.30	1.30	1	2294Z	2294Z
4381-12	2.70	2.70	1	1105Z	1105Z
4381-13	3.70	3.70	1	806Z	806Z
4381-14	6.50	3.25	2	459Z	918Z
4381-21	1.70	1.70	1	1754Z	1754Z
4381-22	2.90	2.90	1	1028Z	1028Z
4381-23	4.80	4.80	1	621Z	621Z
4381-24	8.50	4.25	2	351Z	702Z
4381-90	3.80	3.80	1	785Z	785Z
4381-91	4.80	4.80	1	621Z	621Z
4381-92	8.50	4.25	2	351Z	702Z
3083-CX	3.05	3.05	1	978Z	978Z
3083-E	3.75	3.75	1	795Z	795Z
3083-E*	3.98	3.98	1	749Z	749Z
3083-EX	4.06	4.06	1	735Z	735Z
3083-B	5.64	5.64	1	529Z	529Z
3083-B*	5.99	5.99	1	498Z	498Z
3083-BX	6.11	6.11	1	488Z	488Z
3083-J	7.48	7.48	1	399Z	399Z
3083-J*	7.96	7.96	1	375Z	375Z
3083-JX	8.12	8.12	1	367Z	367Z
3081-D	10.20	5.10	2	292Z	585Z
3081-G	10.20	5.10	2	292Z	585Z
3081-G*	10.80	5.40	2	276Z	552Z
3081-GX	11.20	5.60	2	266Z	533Z
3081-K	13.80	6.90	2	216Z	432Z
3081-K*	14.60	7.30	2	204Z	409Z
3081-KX	15.40	7.70	2	194Z	387Z
3084-Q	23.00	5.75	4	130Z	519Z
3084-Q*	24.40	6.10	4	122Z	489Z
3084-QX	26.00	6.50	4	115Z	459Z
3090-100S	5.60	5.60	1	533Z	533Z
3090-120E	7.50	7.50	1	398Z	398Z
3090-120S	7.50	7.50	1	398Z	398Z
3090-150	9.80	9.80	1	304Z	304Z
3090-150E	10.20	10.20	1	292Z	292Z
3090-150S	11.60	11.60	1	257Z	257Z
3090-170S	14.80	14.80	1	201Z	201Z
3090-180	15.40	15.40	1	194Z	194Z
3090-180E	17.60	17.60	1	169Z	169Z
3090-180S	22.00	22.00	1	136Z	136Z
3090-200	27.70	13.85	2	108Z	215Z
3090-200E	32.00	16.00	2	93Z	186Z
3090-200S	40.00	20.00	2	75Z	149Z
3090-250S	22.00	11.00	2	136Z	271Z
3090-280E	32.00	16.00	2	93Z	186Z
3090-280S	40.00	20.00	2	75Z	149Z
3090-300E	44.00	14.67	3	68Z	203Z
3090-300S	55.00	18.33	3	54Z	163Z

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION C - FORECASTED CPU

CPU Estimate: 29.82 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %
3090-380S	53.00	17.67	3	56%	169%
3090-400	50.00	12.50	4	60%	239%
3090-400E	57.00	14.25	4	52%	209%
3090-400S	74.00	18.50	4	40%	161%
3090-500E	66.00	13.20	5	45%	226%
3090-500S	90.00	18.00	5	33%	166%
3090-600E	77.00	12.83	6	39%	232%
3090-600S	105.00	17.50	6	28%	170%

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION E - HARDWARE SIZING SUMMARY

AREA	MIPS	Label	DASD Megabytes
=====	=====	=====	=====
Common Features	1.02	C/F	6,857.70
Order Processing	0.00	O/P	0.00
Purchasing	10.08	PUR	1,312.74
Accounts Receivable	0.04	A/R	14,058.00
Inventory Control	0.00	I/C	0.00
Warehouse Management	0.00	W/M	0.00
Outbound Logistics	0.00	O/L	0.00
Distribution Requirements	18.68	DRP	1,126.91
Customer Service Mgmt.	N/A	CSM	0.00
	-----		-----
Total:	29.82		Total: 23,355.35

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

=====

DCS/Logistics	CLIENT : JONES COMMISSION
Version 10.0 Hardware Sizing	09-Sep-89

=====

Applications Installed:

Order Processing:	N (Y/N)
Purchasing:	Y (Y/N)
Accounts Receivable:	Y (Y/N)
Inventory Control:	N (Y/N)
Warehouse Management:	N (Y/N)
Outbound Logistics:	N (Y/N)
Distribution Requirements:	Y (Y/N)
Customer Service Management:	N (Y/N)

Technical Environment:

File Access Method:	3 (1=VSAM, 2->4.24=DB2)
OS Type:	1 (1=MVS, 1.7=VSE)
On-line Hours/Day:	8
Number of Users:	30

Business Profile:

Number of Customers:	60
Avg. Msgs/Customer:	4
Number of Vendors:	5,000
Number of Items:	20,000
Number of Warehouses:	1
Number of Kits:	0
Number of Components/Kit:	0
Number of Contracts:	0
Items/Contract:	0
Inquiries per Day:	600
Maint. per Day:	600
Avg. # On-Line Pages per Day:	5,000
# of EMail Memos/Day:	90
# of Lines/EMail Memo:	10

Order Processing:

Sales Orders/Day:	60
SOL's/Order:	5000
Pick Lines/SOL:	7500
Avg. # Kits/Order:	0
Future Dated Prices:	0
Z of SO Lines:	5 Credit/Debit memos
Z of SO Lines:	5 BO/BL lines
Z of SO Lines:	5 Immediate Release?
Z of SO Lines:	5 Picking Exceptions?
Z of SO Lines:	5 Future Orders
Payments/Day:	38 Cash Receipts

Inventory Control:

Transfer Orders/Day:	0
Transfer Order Lines/Order:	0
Pick Lines/TOL:	0
# of Receipts per Day:	2500
# of Items per Receipt:	150

A DOD STUDY OF MILITARY COMMISSARIES

SECTION A - CLIENT DATA

DCS/Logistics

Version 10.0 Hardware Sizing

CLIENT : JONES COMMISSION

09-Sep-89

Putaway Lines per Item: 300
of Transfers per Day: 0
of Adjustments per Day: 0
% of Rec'd Line: 5 % Auto 30 Release

Purchasing:

Purchase Orders/Day: 750
Purchase Order Lines/Order: 150
% of P.O.s that Become Overdue: 5 %
% Overdue P.O. Lines: 1 %

Warehouse Management:

% of Locations Unavailable: 5 %
% Item/Locs. Counted per Day: 5 %
% Items w/Lots: 10 %
% of Locations: 5 % Mixed item locations
Avg. # Zones per Whse: 15
Avg. Locs/Item: 3
Avg. # Lots/Lot-Cntrl'd Item: 5
Avg. Locs./Warehouse: 40,000
Avg. Move Methods/Loc: 1 (Not greater than 3)
Avg. Storage Types/Loc: 1 (Not greater than 3)

Outbound Logistics:

Batch Bundling? Y (Y/N)
of Freight Lanes: 12
Avg. # Bundle Specs per Zone: 2
Avg. # of SOLs per Load: 5,000
Avg. # Pick Paths per Whse: 10
Avg. # Ship Vias per Whse: 3

Customer Service Management:

% of CSM Periods: 24

Distribution Requirements Planning:

of Bills of Distribution: 1
Avg. # Whses per Bill of Dist.: 1
Suggested POs/Day: 2500
Suggested TOs/Day: 0
% of Items Needing Gross Req. Adj.: 5 %

A DOD STUDY OF MILITARY COMMISSARIES

SECTION C - FORECASTED CPU

CPU Estimate: 15.42 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %
4381-1	2.00	2.00	1	771%	771%
4381-2	2.70	2.70	1	571%	571%
4381-3	4.80	2.40	2	321%	643%
4381-11	1.30	1.30	1	1186%	1186%
4381-12	2.70	2.70	1	571%	571%
4381-13	3.70	3.70	1	417%	417%
4381-14	6.50	3.25	2	237%	475%
4381-21	1.70	1.70	1	907%	907%
4381-22	2.90	2.90	1	532%	532%
4381-23	4.80	4.80	1	321%	321%
4381-24	8.50	4.25	2	181%	363%
4381-90	3.80	3.80	1	406%	406%
4381-91	4.80	4.80	1	321%	321%
4381-92	8.50	4.25	2	181%	363%
3083-CX	3.05	3.05	1	506%	506%
3083-E	3.75	3.75	1	411%	411%
3083-E*	3.98	3.98	1	387%	387%
3083-EX	4.06	4.06	1	380%	380%
3083-B	5.64	5.64	1	273%	273%
3083-B*	5.99	5.99	1	257%	257%
3083-BX	6.11	6.11	1	252%	252%
3083-J	7.48	7.48	1	206%	206%
3083-J*	7.96	7.96	1	194%	194%
3083-JX	8.12	8.12	1	190%	190%
3081-D	10.20	5.10	2	151%	302%
3081-G	10.20	5.10	2	151%	302%
3081-G*	10.80	5.40	2	143%	286%
3081-GX	11.20	5.60	2	138%	275%
3081-K	13.80	6.90	2	112%	223%
3081-K*	14.60	7.30	2	106%	211%
3081-KX	15.40	7.70	2	100%	200%
3084-Q	23.00	5.75	4	67%	268%
3084-Q*	24.40	6.10	4	63%	253%
3084-QX	26.00	6.50	4	59%	237%
3090-100S	5.60	5.60	1	275%	275%
3090-120E	7.50	7.50	1	206%	206%
3090-120S	7.50	7.50	1	206%	206%
3090-150	9.80	9.80	1	157%	157%
3090-150E	10.20	10.20	1	151%	151%
3090-150S	11.60	11.60	1	133%	133%
3090-170S	14.80	14.80	1	104%	104%
3090-180	15.40	15.40	1	100%	100%
3090-180E	17.60	17.60	1	88%	88%
3090-180S	22.00	22.00	1	70%	70%
3090-200	27.70	13.85	2	56%	111%
3090-200E	32.00	16.00	2	48%	96%
3090-200S	40.00	20.00	2	39%	77%
3090-250S	22.00	11.00	2	70%	140%
3090-280E	32.00	16.00	2	48%	96%
3090-280S	40.00	20.00	2	39%	77%
3090-300E	44.00	14.67	3	35%	105%
3090-300S	55.00	18.33	3	28%	84%

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION C - FORECASTED CPU

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CPU Estimate: 15.42 MIPS

MODEL	Complex MIPS	Processor Rate	Number of Processors	Complex Busy %	Processor Busy %
=====	=====	=====	=====	=====	=====
3090-380S	53.00	17.67	3	29%	87%
3090-400	50.00	12.50	4	31%	123%
3090-400E	57.00	14.25	4	27%	108%
3090-400S	74.00	18.50	4	21%	83%
3090-500E	66.00	13.20	5	23%	117%
3090-500S	90.00	18.00	5	17%	86%
3090-600E	77.00	12.83	6	20%	120%
3090-600S	105.00	17.50	6	15%	88%

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SECTION E - HARDWARE SIZING SUMMARY

AREA =====	MIPS =====	Label =====	DASD Megabytes =====
Common Features	1.02	C/F	5,728.82
Order Processing	0.00	O/P	0.00
Purchasing	5.04	PUR	656.37
Accounts Receivable	0.02	A/R	14,058.00
Inventory Control	0.00	I/C	0.00
Warehouse Management	0.00	W/M	0.00
Outbound Logistics	0.00	O/L	0.00
Distribution Requirements	9.34	DRP	1,126.91
Customer Service Mgmt.	N/A	CSM	0.00
Total: 15.42			Total: 21,570.10

≡≡≡ *A DOD STUDY OF MILITARY COMMISSARIES* ≡≡≡

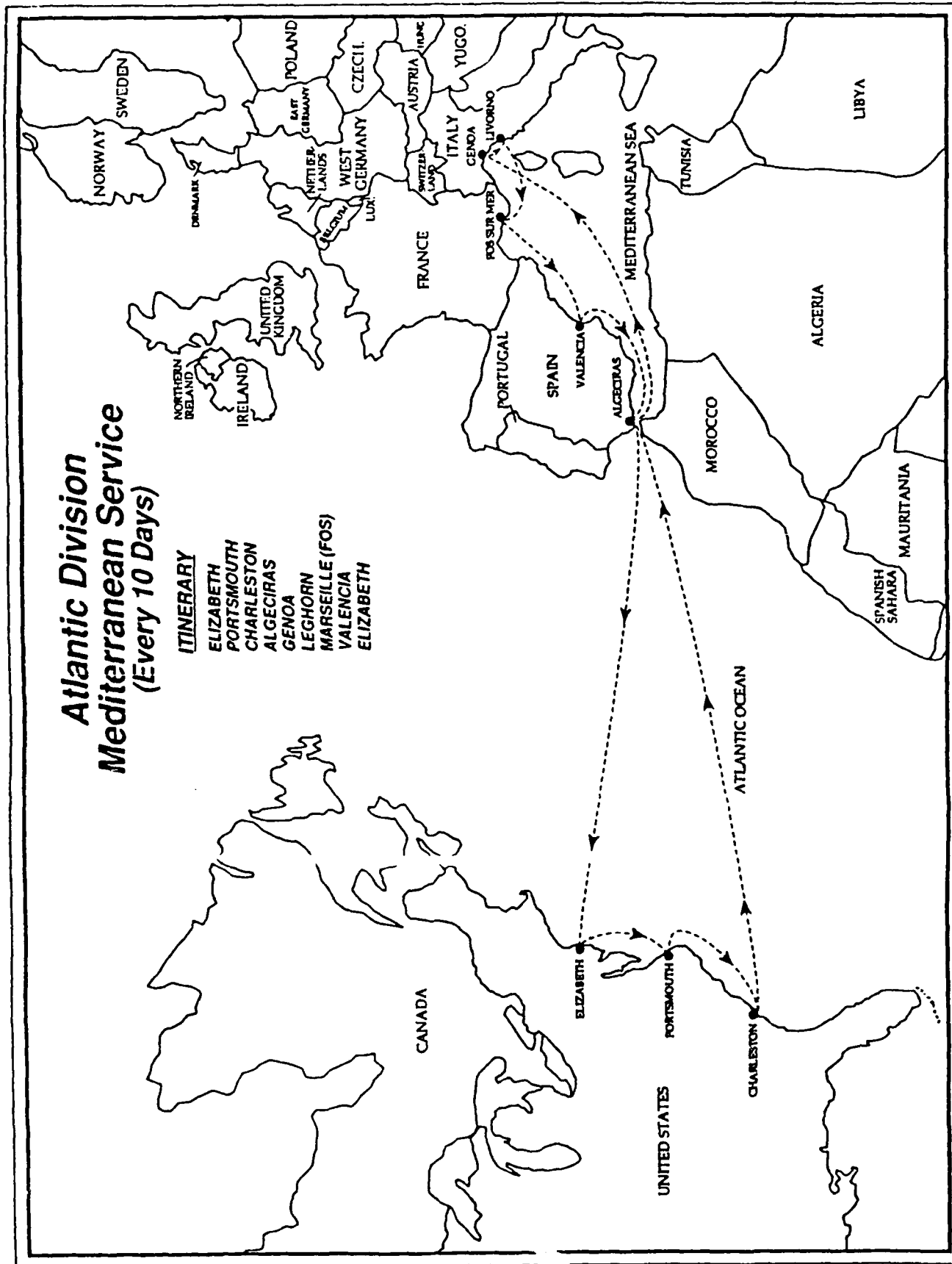
Appendix D

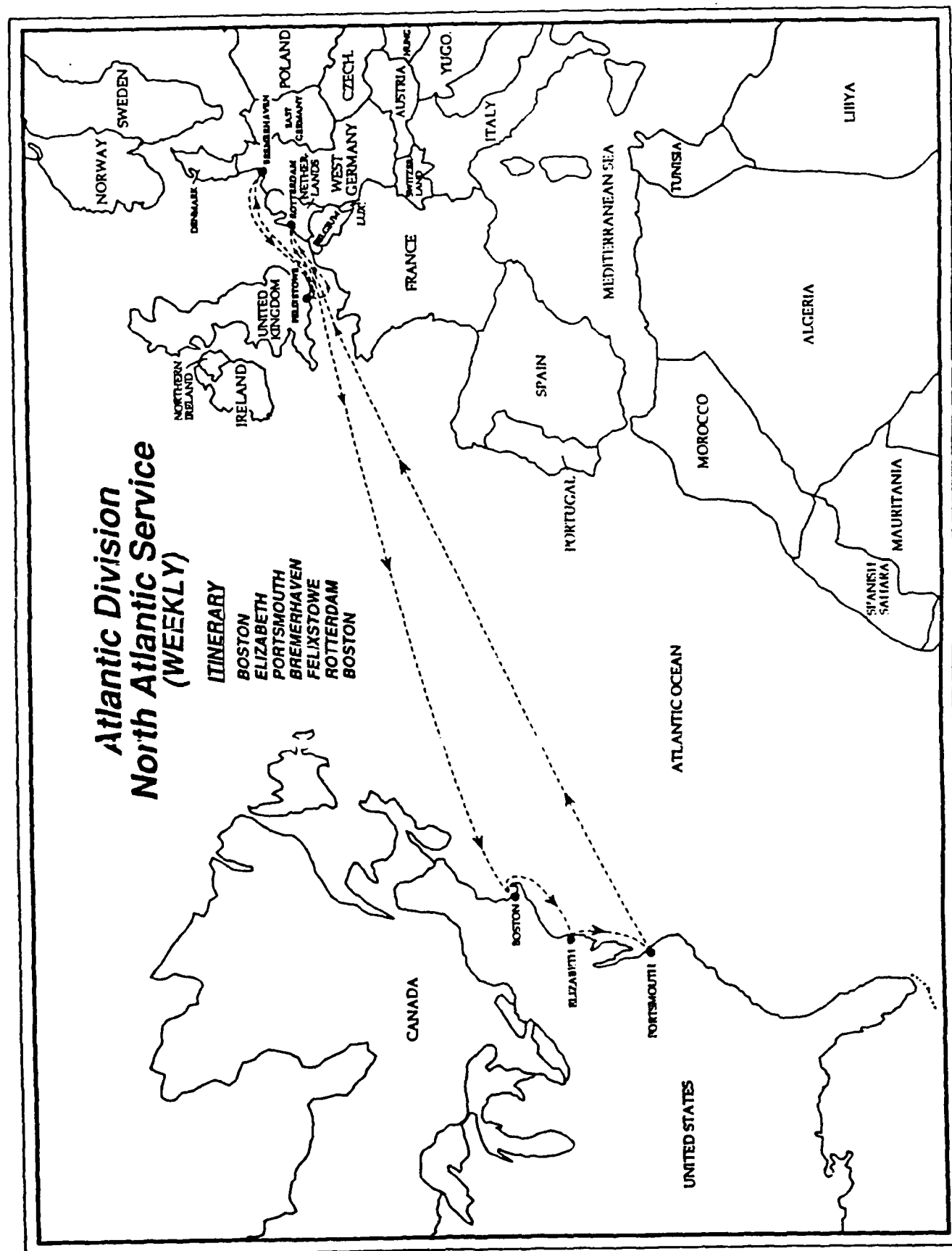
TRANSPORTATION DATA

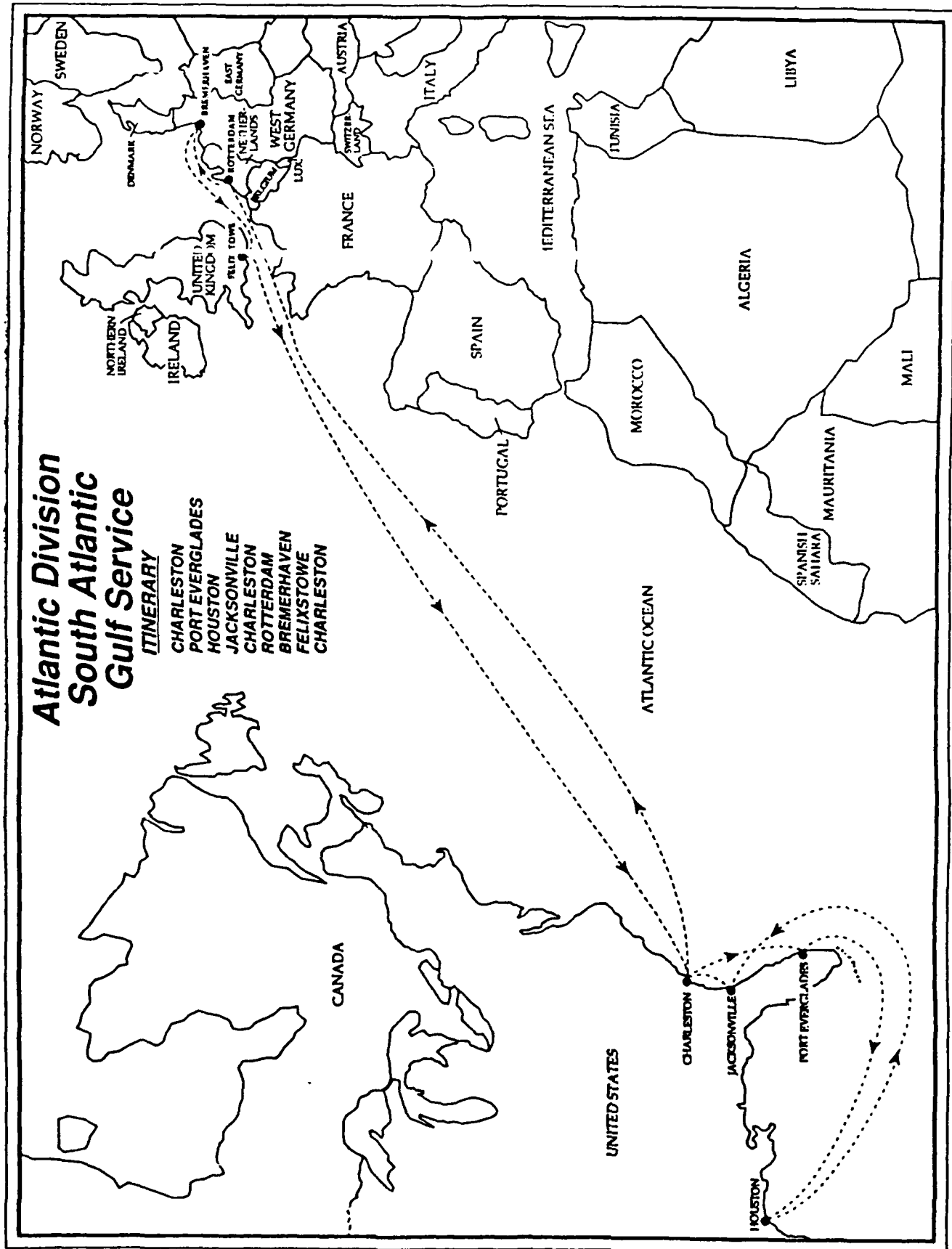
Atlantic Division Mediterranean Service (Every 10 Days)

ITINERARY

ELIZABETH
 PORTSMOUTH
 CHARLESTON
 ALGECIRAS
 GENOA
 LEGHORN
 MARSEILLE (FOS)
 VALENCIA
 ELIZABETH







A DOD STUDY OF MILITARY COMMISSARIES

ATLANTIC TRANSIT TIME MATRIX SEA-LAND ATLANTIC CLASS VESSEL DEPLOYMENT AS OF 3/10/89

KEY: Eastbound Days/Westbound Days

	MON*	BOS	EL2	BALT	PORTS	CHAS	JAX	PEV	HOU	LB	OAK	SEATL
Felixstowe	15/14	16/10	13/12	16/15	11/14	14/9	15/18	23/11	19/14	24/19	25/20	21/20
Scotland	18/14	19/11	16/13	19/15	14/15	16/11	17/20	25/13	21/16	26/21	27/22	24/21
Liverpool	16/16	17/12	14/14	17/17	12/16	16/10	17/19	25/12	21/15	23/20	24/21	22/22
Ireland	19/14	20/10	17/12	20/16	15/15	12/16	13/25	21/18	17/21	22/26	23/27	25/20
Rotterdam	16/12	17/8	14/10	17/13	12/13	10/13	11/22	19/15	15/18	20/24	21/25	22/18
Antwerp	17/13	18/9	15/11	18/14	13/14	11/14	12/23	20/16	16/19	21/24	22/25	23/19
LeHavre	18/14	19/10	16/12	19/15	14/15	12/15	13/24	21/17	17/20	22/25	23/26	24/20
Bhvn	13/16	14/12	11/14	14/17	9/16	12/11	13/20	21/13	17/16	22/21	23/22	19/22
Hamburg	14/17	15/13	12/15	15/18	10/17	13/12	14/21	22/14	18/17	23/22	24/23	20/23
Gdynia	19/21	21/18	17/19	20/22	15/21	17/17	19/26	26/19	22/21	27/26	28/27	25/27
Copenhagen	20/17	21/13	18/15	21/18	16/17	17/15	18/24	26/17	22/22	27/27	28/28	26/23
Goth/Wal	18/18	19/14	16/16	19/19	14/18	15/16	16/25	24/18	20/23	25/28	26/29	24/24
Helsinki	18/21	19/17	16/19	19/22	14/21	17/16	18/25	26/18	22/21	27/26	28/27	24/27
Bilbao	27/17	28/14	25/15	28/18	23/18	17/21	18/30	26/23	22/27	26/32	27/33	33/22
Lisbon	25/14	26/14	23/12	26/15	21/14	15/16	16/18	24/20	26/30	25/35	26/36	31/19
Valencia	22/12	22/12	20/10	23/13	19/12	17/14	19/16	39/27	35/30	40/35	41/36	27/17
Marseilles	20/14	20/14	18/12	21/15	17/14	15/16	17/18	37/29	33/32	38/37	39/38	25/19
Leghorn	19/15	19/15	17/13	20/16	16/15	14/17	15/19	36/30	32/33	37/38	38/39	24/20
Genoa	17/16	17/16	15/14	18/17	14/16	12/18	14/20	34/32	30/35	35/40	36/41	22/21
Piraeus	27/19	27/19	25/17	28/20	24/19	22/21	20/23	33/30	29/27	34/32	35/33	32/23
Algeiras	15/10	15/10	13/8	16/11	12/10	10/12	12/14	27/26	23/29	28/38	29/39	19/15

* Not Served Directly
0457.prr
3/10/89

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SeaLand

Service Description (as of April 15, 1989)

PACIFIC NORTHWEST SERVICE

Six D-9J's (Mariner, Freedom, Voyager, Developer, Express, Independence) operate on a weekly direct service between Tacoma, Yokohama, Kobe, Singapore, Hong Kong, Kaohsiung, Kobe, and Yokohama. The ports of Kobe, Hong Kong, Singapore, and Kaohsiung are the primary ports for relaying cargo to Sea-Land and Common Carrier feeders. These feeders serve the primary ports of Manila, Subic, Cebu, Jakarta, Port Kelang, Penang, Australian ports, and Bangkok.

PACIFIC SOUTHWEST SERVICE

Six D-9J's (Explorer, Liberator, Endurance, Patriot, Defender, Innovator) provide a weekly service between Long Beach, Oakland, Yokohama, Kobe, Busan, Hong Kong, Kaohsiung, Busan, Kobe, and Yokohama. Feeder service is provided to outlying ports as described above.

HAWAII GUAM SERVICE

Four C-8's (Navigator, Trader, Enterprise, Pacific) and one C-6 (Hawaii) provide a weekly domestic/international service between Long Beach, Oakland, Honolulu, Guam, Naha (Okinawa), and Kaohsiung. Feeder service exists for the neighbor islands of Hawaii by tug and barge. Connecting carrier service over Guam is also available to Saipan and Tinian.

PHILIPPINES FEEDER

One World-class vessel (World Lion) provides weekly direct service from Kaohsiung to Manila and Cebu, and back to Kaohsiung. Flag-impelled cargo to Subic Bay is relayed from Kaohsiung via the Sea-Land Pacer, which also calls Manila on a weekly basis.

BANGKOK/SINGAPORE FEEDER

Two Bay-class vessels (Somers Bay and Sarloys Bay) provide a twice-weekly service from Bangkok to Singapore, with departures from Bangkok on Thursday and Saturday.

HONG KONG/KAHHSIUNG FEEDER

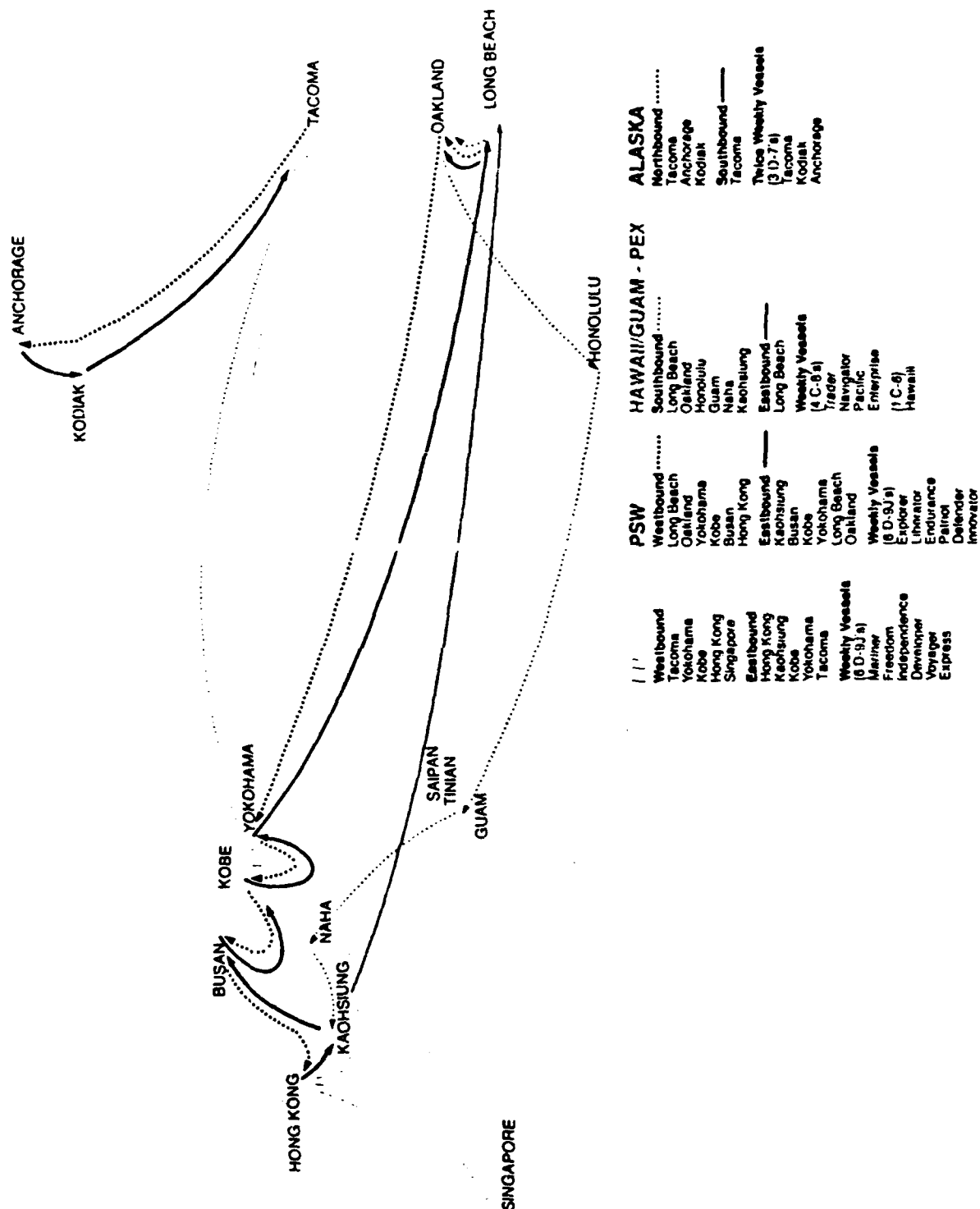
One world-class vessel (World Tiger) provides a twice-weekly shuttle service between Hong Kong and Kaohsiung.

A DOD STUDY OF MILITARY COMMISSARIES

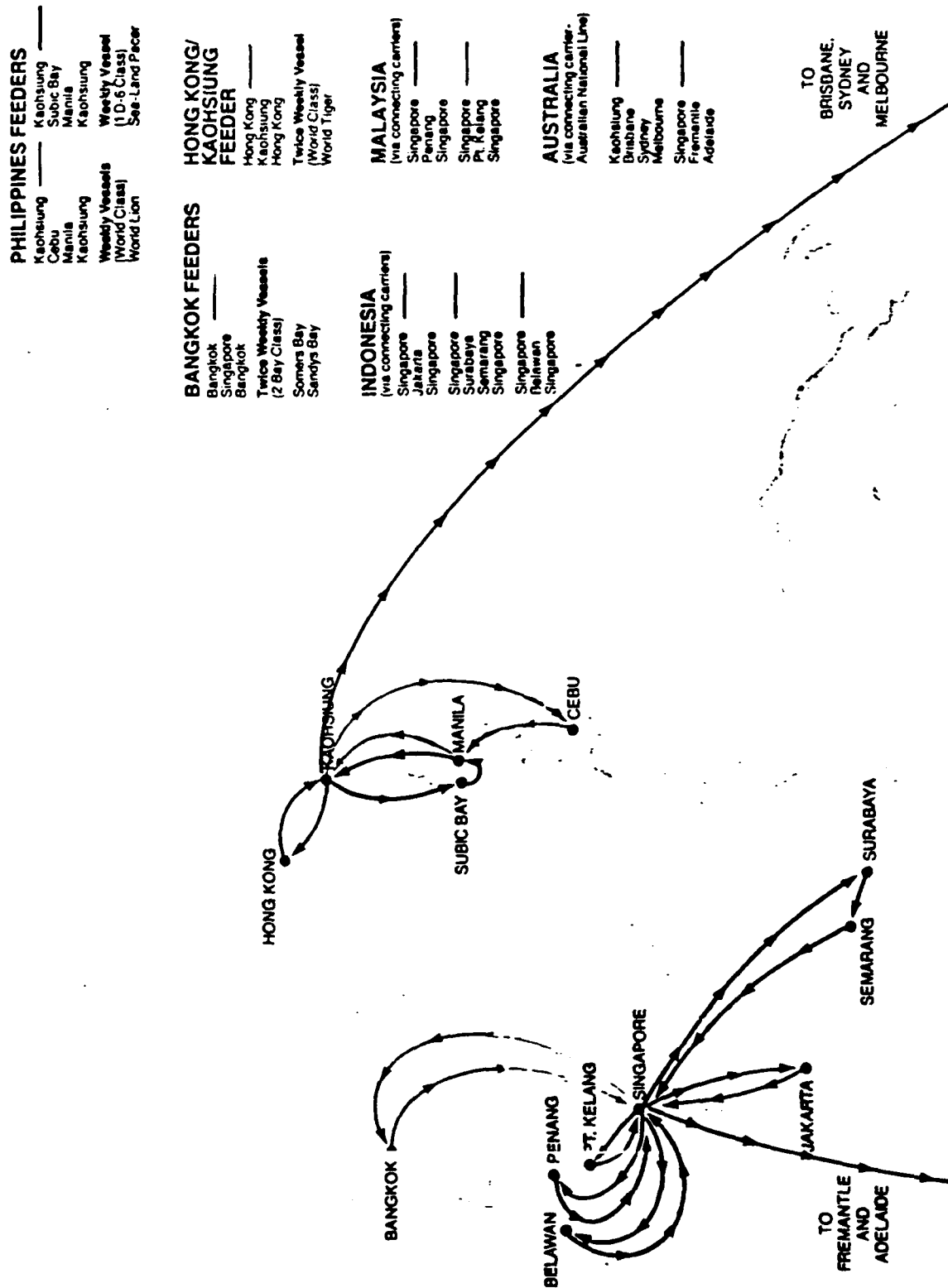
SeaLand

Transit Matrix Westbound

FROM/TO	TACOMA	LONG BEACH	OAKLAND	VANC. B.C.	ATLANTA	CHICAGO	DALLAS	MEMPHIS	PHIL. ILY.	BOSTON	BALT.	NEW ORLEANS	HOUSTON	TORONTO	MONTREAL
PACIFIC EXPRESS SERVICE															
Hong Kong	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Kaohsiung	—	20	18	—	27	25	26	28	31	32	27	28	28	32	32
Jakarta	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Port Kelang	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Penang	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Bangkok	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Singapore	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Naha	—	18	16	—	25	23	24	26	29	30	25	26	26	30	30
Manila	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subic Bay	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Cebu	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
PACIFIC SOUTHWEST															
Hong Kong	—	20	19	—	27	26	27	25	—	—	—	30	29	—	—
Kaohsiung	—	22	21	—	29	28	29	27	—	—	—	32	31	—	—
Busan	—	18	15	—	23	22	23	21	—	—	—	26	25	—	—
Kobe	—	14	13	—	21	20	21	19	—	—	—	24	23	—	—
Yokohama	—	12	11	—	19	18	19	17	—	—	—	22	21	—	—
Jakarta	—	31	30	—	38	37	38	36	—	—	—	41	40	—	—
Port Kelang	—	29	28	—	36	35	36	34	—	—	—	39	38	—	—
Penang	—	31	30	—	38	37	38	36	—	—	—	41	40	—	—
Bangkok	—	30	29	—	37	36	37	35	—	—	—	40	39	—	—
Singapore	—	27	26	—	34	33	34	32	—	—	—	37	36	—	—
Incheon	—	17	16	—	24	23	24	22	—	—	—	27	26	—	—
Manila	—	27	26	—	34	33	34	32	—	—	—	37	36	—	—
Subic Bay	—	29	28	—	36	35	36	34	—	—	—	39	38	—	—
Cebu	—	23	28	—	36	35	36	34	—	—	—	39	38	—	—
PACIFIC NORTHWEST															
Hong Kong	17	—	—	21	—	22	—	—	25	29	27	—	—	25	28
Kaohsiung	19	—	—	23	—	24	—	—	27	31	29	—	—	27	30
Kobe	13	—	—	17	—	18	—	—	21	25	3	—	—	21	24
Yokohama	11	—	—	15	—	16	—	—	19	23	21	—	—	19	22
Singapore	21	—	—	25	—	26	—	—	29	33	31	—	—	29	32
Busan	17	—	—	21	—	22	—	—	25	29	27	—	—	25	28
Jakarta	25	—	—	29	—	30	—	—	33	37	35	—	—	33	36
Port Kelang	23	—	—	27	—	28	—	—	31	35	33	—	—	31	34
Penang	24	—	—	28	—	29	—	—	32	36	34	—	—	32	35
Bangkok	31	—	—	35	—	36	—	—	39	43	41	—	—	39	42
Incheon	18	—	—	22	—	23	—	—	26	30	28	—	—	26	29
Manila	25	—	—	29	—	30	—	—	33	37	35	—	—	33	36
Subic Bay	30	—	—	34	—	35	—	—	38	42	40	—	—	38	41
Cebu	23	—	—	27	—	28	—	—	31	35	33	—	—	31	34



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A DOD STUDY OF MILITARY COMMISSARIES

SOUTHBOUND TRANSIT TIME MATRIX

DESTINATIONS	ORIGINS							
	ELIZABETH	JACKSONVILLE	PT EVERGLADES	NEW ORLEANS	HOUSTON	LONG BEACH	OAKLAND	SEATTLE/TACOMA
Puerto Rico	4	4	5	7	11	12	14	13
Virgin Islands	6	5	6	8	12	13	15	15
Dominican Republic	8	8	6	9	14	15	16	16
Trinidad	12	9	15	12	16	17	19	20
Aruba	8	6	12	9	13	14	16	17
Curacao	9	7	13	10	14	15	17	18
Jamaica	20	5	3	6	11	12	13	13
Haiti	21	6	4	7	12	13	14	14
Costa Rica	16	7	7	4	7	8	11	11
El Salvador	19	7	6	10	13	14	17	18
Honduras	16	4	3	7	10	11	14	15
Guatemala	16	4	3	7	10	11	14	14

NOTE: Microbridge (intermodal) services are available from Boston, Philadelphia, Baltimore, Charleston, and other points.

≡≡≡ A DOD STUDY OF MILITARY COMMISSARIES ≡≡≡

Alaska Division Route Map

ITINERARY

----- TACOMA
ANCHORAGE
KODIAK
TACOMA

..... KODIAK
CORDOVA
KODIAK

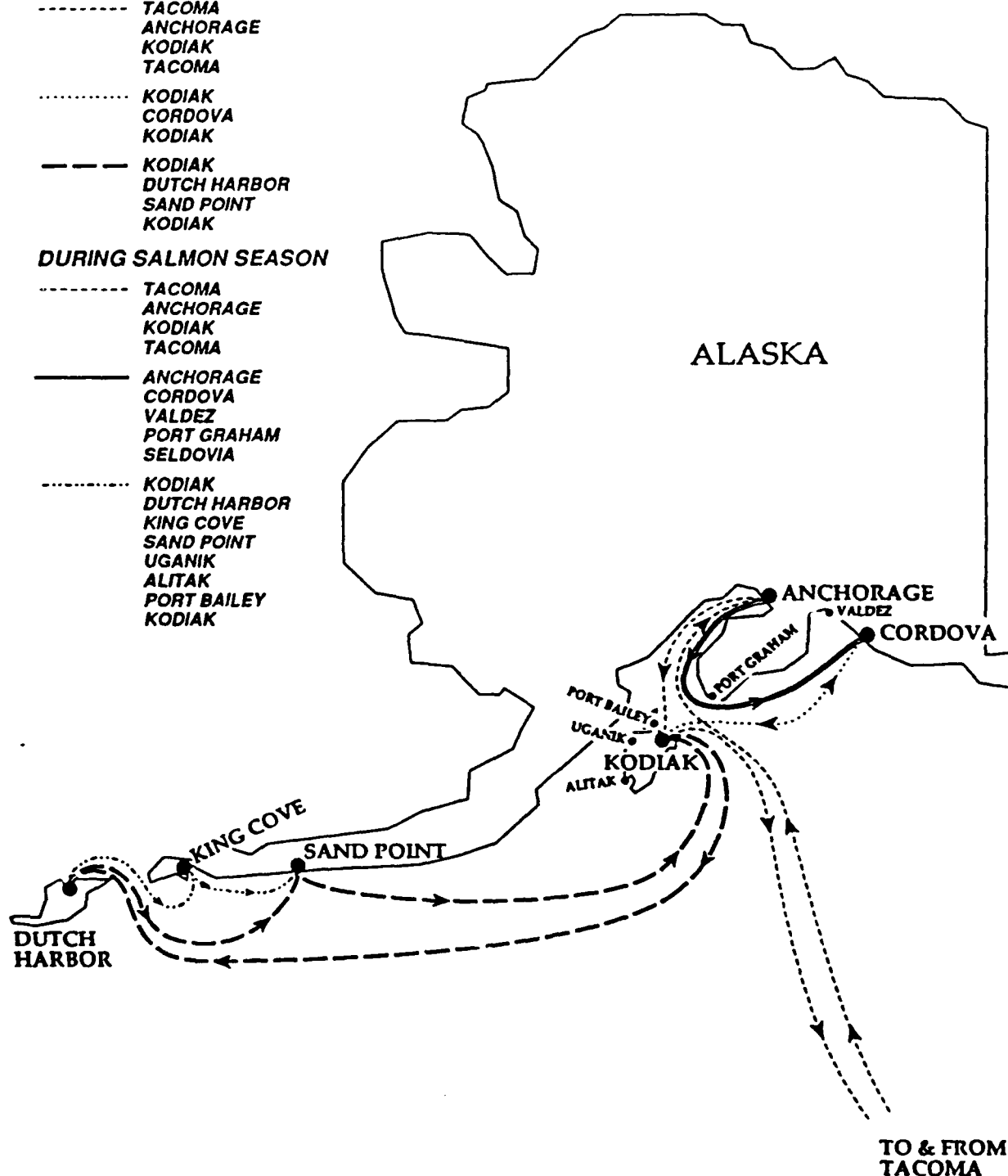
--- KODIAK
DUTCH HARBOR
SAND POINT
KODIAK

DURING SALMON SEASON

----- TACOMA
ANCHORAGE
KODIAK
TACOMA

———— ANCHORAGE
CORDOVA
VALDEZ
PORT GRAHAM
SELDOVIA

----- KODIAK
DUTCH HARBOR
KING COVE
SAND POINT
UGANIK
ALITAK
PORT BAILEY
KODIAK



===== A DOD STUDY OF MILITARY COMMISSARIES =====

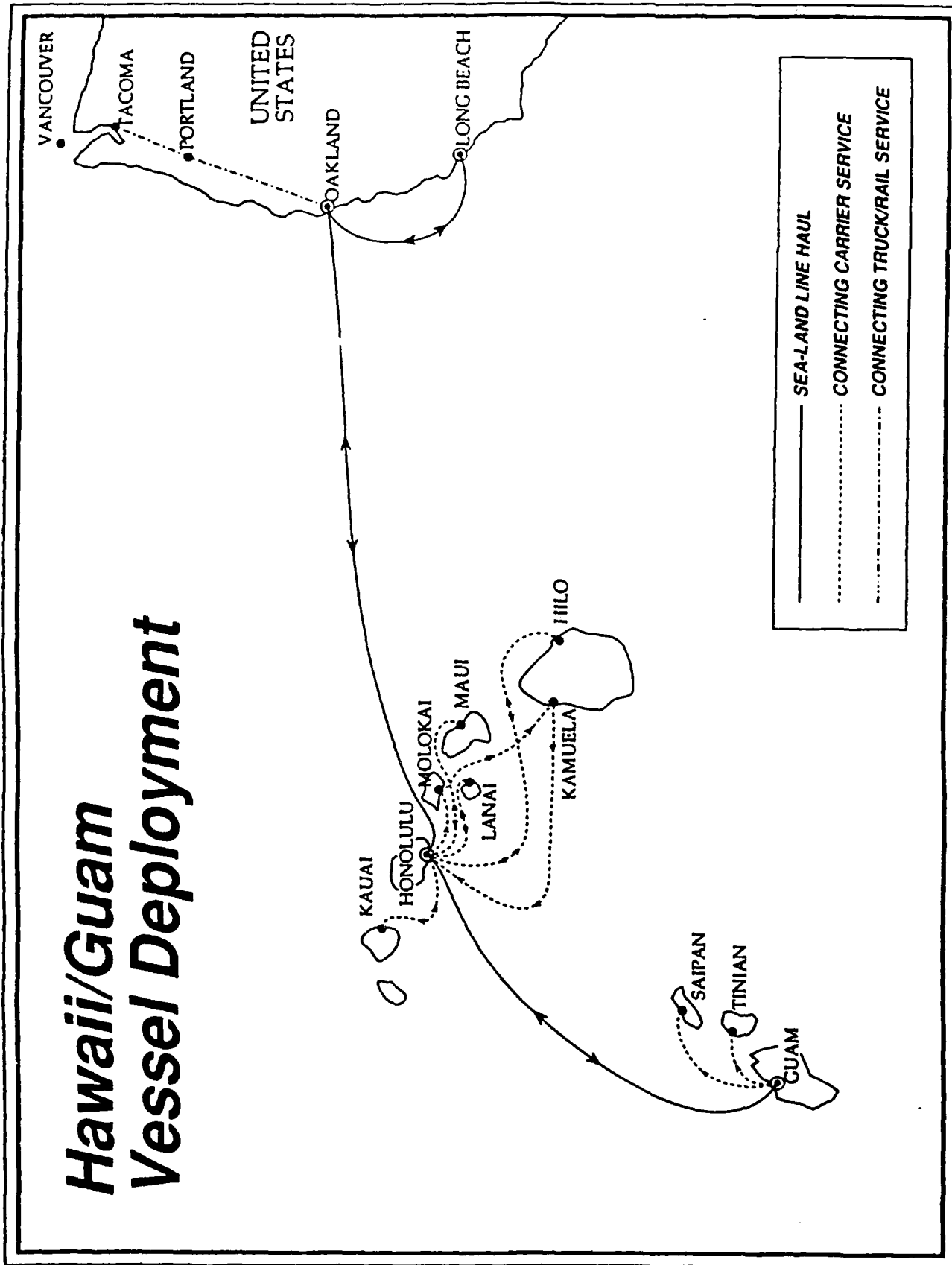
TRANSIT TIMES

Linehaul Service

ORIGINS	DESTINATIONS	TRANSIT TIME
Anchorage	Kodiak	16 hours
Tacoma	Anchorage	3 days, 7 hours
Kodiak	Tacoma	3 days, 3 hours
Tacoma	Kodiak	4 days

Barge Service

ORIGINS	DESTINATIONS	TRANSIT TIME
Kodiak	Chignik	1 day, 9 hours
Chignik	Sand Point	17 hours
Sand Point	Dutch Harbor	1 day, 8 hours
Dutch Harbor	Kodiak	3 days, 4 hours
Kodiak	Cordova	1 day, 12 hours
Cordova	Kodiak	1 day, 12 hours
Kodiak	Port Bailey	7 hours
Kodiak	Alitak	16 hours
Anchorage	Cordova	2 days, 1 hour
Cordova	Valdez	10 hours
Valdez	Port Graham	1 day, 7 hours
Port Graham	Seldovia	2 hours
Seldovia	Anchorage	16 hours
Port Bailey	Uganik	12 hours
Uganik	Alitak	8 hours



A DOD STUDY OF MILITARY COMMISSARIES

Sea/Land

CUTOFF AND TRANSIT TIMES

Hawaii Service

ORIGIN B/L	CY LOCATION	CUTOFF DAY	CUTOFF TIME	AVAIL. DAY	HONOLULU TRANSIT
EAST COAST					
Atlanta Stack Service	CSX Ramp 1698 Marietta Rd Marietta, GA	Tues	Noon	Mon	14 Days
Baltimore (Via Oakland)	CSX Ramp Hanover St Port Covington Baltimore, MD	Tues	6 PM	Mon	14 Days
Boston	Coastal Terminal 378 Commercial Street Malden, MA	Thurs	6 PM	Mon	19 Days
Worcester	P & W Rail Ramp 382 Southbridge St. Worcester, MA	Thurs	6 PM	Mon	19 Days
Charleston	CSX Ramp 2700 Bennett Yard Rd Charleston, SC	Fri	6 PM	Mon	18 Days
Jacksonville	CSX Ramp 5902 Sportsman's Club Rd Jacksonville, FL	Fri	6 PM	Mon	16 Days
Little Ferry NJ Stack Service	ISI Ramp 2200 83rd St North Bergen, NJ	Fri	6 PM	Mon	18 Days
Miami	CSX Ramp 5995 East 8th St Hialeah, FL	Thurs	6 PM	Mon	19 Days
Norfolk (Via Oakland)	Norfolk & Southern Ramp Portsmouth Terminal Norfolk, VA	Tues	6 PM	Mon	14 Days
Philadelphia (Via Oakland)	CSX/Santa Fe Delaware Ave Philadelphia, PA	Tues	6 PM	Mon	14 Days
Savannah	CSX Ramp Tremont Rd Savannah, GA	Fri	6 PM	Mon	18 Days
Wilmington, NC	Seaboard—CSX 2202 Burnett Blvd North Carolina State Port Authority Wilmington, NC	Fri	6 PM	Mon	18 Days
MID-WEST					
Chicago Stack Service (Via Oakland)	CSX Ramp 7000 W. 71st Bedford Park, IL	Fri	6 PM	Mon	12 Days
Kansas City	Burlington-Northern Ramp 153 W. 14th Ave No. Kansas City, MO	Mon	6 PM	Mon	15 Days

A DOD STUDY OF MILITARY COMMISSARIES

Sea/Land

CUTOFF AND TRANSIT TIMES

Guam Service

ORIGIN B/L	CY LOCATION	CUTOFF DAY	CUTOFF TIME	AVAIL. DAY	GUAM TRANSIT
EAST COAST					
Atlanta (Stack Service)	CSX Ramp 1698 Marietta Rd Marietta, GA	Tues	Noon	Wed	22 Days
Baltimore	CSX Ramp Hanover St Port Covington Baltimore, MD	Tues	6 PM	Wed	22 Days
Boston	Coastal Terminal 378 Commercial St. Malden, MA	Thu	6 PM	Wed	27 Days
Worcester	P & W Rail Ramp 382 Southbridge St. Worcester, MA	Thu	6 PM	Wed	27 Days
Charleston	CSX Ramp 2700 Bennett Yard Rd Charleston, SC	Fri	6 PM	Wed	25 Days
Jacksonville	CSX Ramp 5902 Sportsman's Club Rd Jacksonville, FL	Fri	6 PM	Wed	25 Days
Little Ferry NJ Stack Service	ISI Ramp 2200 83rd St North Bergen, NJ	Fri	6 PM	Wed	26 Days
Miami	CSX Ramp 5995 East 8th St Hialeah, FL	Thu	6 PM	Wed	26 Days
Norfolk	Norfolk & Southern Ramp Portsmouth Terminal Norfolk, VA	Tues	6 PM	Wed	22 Days
Philadelphia	CSX/Santa Fe Delaware Ave Philadelphia, PA	Tues	6 PM	Wed	22 Days
Savannah	CSX Ramp Tremont Rd Savannah, GA	Fri	6 PM	Wed	25 Days
Wilmington, NC	Seaboard—CSX 2202 Burnett Blvd North Carolina State Port Authority Wilmington, NC	Fri	6 PM	Wed	25 Days
MID-WEST					
Chicago Stack Service (Via Oakland)	CSX Ramp 7000 W. 71st Bedford Park, IL	Fri	6 PM	Wed	19 Days
Kansas City	Burlington-Northern Ramp 153 W. 14th Ave No. Kansas City, MO	Mon	6 PM	Wed	23 Days

A DOD STUDY OF MILITARY COMMISSARIES

PACIFIC OUTBOUND

NORTH AMERICA TO ASIA/MID-EAST

SEA-LAND BRIDGE DEPARTURES

New York/Phil	7/31		8/7		8/14		8/21		8/28		9/4		9/11		9/18
Houston	7/31		8/7		8/14		8/21		8/28		9/4		9/11		9/18
New Orleans	7/31		8/7		8/14		8/21		8/28		9/4		9/11		9/18
Baltimore	7/29		8/5		8/12		8/19		8/26		9/2		9/9		9/16
Boston	7/27		8/3		8/10		8/17		8/24		8/31		9/7		9/14
Port/Norfolk	7/29		8/5		8/12		8/19		8/26		9/2		9/9		9/16
Wilmington N.C.	7/28	7/29	8/4	8/5	8/11	8/12	8/18	8/19	8/25	8/26	9/1	9/2	9/8	9/9	9/15
Chas/Savannah	7/31	7/29	8/7	8/5	8/14	8/12	8/21	8/19	8/28	8/26	9/4	9/2	9/11	9/9	9/18
Jax/Mia/Tampa	7/29		8/5		8/12		8/19		8/26		9/2		9/9		9/16
Mobile	7/29		8/5		8/12		8/19		8/26		9/2		9/9		9/16
Toronto	7/31		8/7		8/14		8/21		8/28		9/4		9/11		9/18
Montreal	7/28		8/4		8/11		8/18		8/25		9/1		9/8		9/15

INLAND AMERICAN DEPARTURES *

Atlanta		8/2		8/9		8/16		8/23		8/30		9/6		9/13		9/20
Chicago	8/3	8/3	8/10	8/10	8/17	8/17	8/24	8/24	8/31	8/31	9/7	9/7	9/14	9/14	9/21	9/21
Dallas/Ft. Worth		8/2		8/9		8/16		8/23		8/30		9/6		9/13		9/20
Denver		8/7		8/14		8/21		8/28		9/4		9/11		9/18		9/25
K.C. Mo/Ks		8/4		8/12		8/19		8/26		9/2		9/9		9/16		9/23
Memphis		8/2		8/9		8/16		8/23		8/30		9/6		9/13		9/20
Milwaukee	8/2		8/9		8/16		8/23		8/30		9/6		9/13		9/20	
Minn/St. Paul	8/4		8/11		8/18		8/25		9/1		9/8		9/15		9/22	
Nashville		8/3		8/10		8/17		8/24		8/31		9/7		9/14		9/21
St. Louis		8/4		8/11		8/18		8/25		9/1		9/8		9/15		9/22

LINEHAUL VESSEL & VOYAGE	VOYAGER 141W	ENDURANCE 94W	DEVELOPER 120W	PRODUCER 89W	EXPRESS 138W	DEFENDER 100W	INDEPENDENCE 116W	INNOVATOR 94W	MARINER 88W	EXPLORER 94W	FREEDOM 99W	LIBERATOR 102W	VOYAGER 142W	ENDURANCE 95W	DEVELOPER 121W	PRODUCER 100W
Vancouver B.C.(A)	8/4		8/11		8/18		8/25		8/31		9/7		9/15		9/22	
Portland(A)	8/4		8/11		8/18		8/25		8/31		9/7		9/15		9/22	
Tacoma	8/8		8/15		8/20		8/28		9/3		9/12		9/19		9/26	
Long Beach		8/9		8/16		8/23		8/30		9/6		9/13		9/20		9/27
Oakland		8/10		8/17		8/24		8/31		9/7		9/14		9/21		9/28

ARRIVES

Yoko/Tokyo(C)	8/19	8/21	8/25	8/28	9/2	9/4	9/8	9/11	9/16	9/18	9/23	9/25	9/30	10/2	10/7	10/9
Kobe/Osa(C)	8/21	8/23	8/28	8/30	9/4	9/6	9/11	9/13	9/18	9/20	9/25	9/27	10/2	10/4	10/8	10/11
Busan(I)	8/25	8/25	9/1	9/1	9/8	9/8	9/15	9/15	9/22	9/22	9/29	9/29	10/6	10/6	10/13	10/13
Kao/Keelung(I)	8/27	8/31	9/2	9/7	9/10	9/14	9/17	9/21	9/24	9/29	10/1	10/5	10/12	10/12	10/19	10/19
Hong Kong	8/25	8/28	9/1	9/5	9/8	9/12	9/15	9/19	9/22	9/26	9/29	10/3	10/6	10/10	10/13	10/17
Singapore(G)	8/29	9/3											10/10	10/17	10/17	10/24
Manila(Dm)	8/2	9/4	9/8	9/12	9/16	9/19	9/23	9/26	9/30	10/3	10/7	10/10	10/14	10/17	10/21	10/24
Incheon(I)	8/26	8/26	9/2	9/2	9/8	9/9	9/16	9/16	9/23	9/23	9/30	9/30	10/7	10/7	10/14	10/14
Naha	8/4		9/11		9/18		9/25		10/2		10/9		10/16		10/23	
Bangkok(I)	8/8	9/8	9/15	9/15	9/22	9/22	9/29	9/29	10/6	10/6	10/13	10/13	10/20	10/20	10/27	10/27
Penang(I)	9/1	9/8	9/8	9/16	9/23	9/23	9/22	9/30	9/26	10/7	10/6	10/14	10/13	10/21	10/20	10/28
Port Kelang(I)	8/31	9/7	9/7	9/14	9/14	9/21	9/21	9/28	9/28	10/5	10/5	10/12	10/12	10/19	10/18	10/26
Jakarta(I)	8/2	9/8	9/8	9/16	9/16	9/23	9/23	9/30	9/30	10/7	10/7	10/14	10/14	10/21	10/21	10/28
Shanghai(I)	8/31	9/8	9/7	9/15	9/14	9/22	9/21	9/29	9/28	10/6	10/5	10/13	10/12	10/20	10/19	10/27
Dalian(I)	8/31	9/8	9/7	9/15	9/14	9/22	9/21	9/29	9/28	10/6	10/5	10/13	10/12	10/20	10/19	10/27
Xingang(I)	8/31	9/8	9/7	9/15	9/14	9/22	9/21	9/29	9/28	10/6	10/5	10/13	10/12	10/20	10/19	10/27

ARRIVES

Colombo(K)	8/5	8/5	9/12	9/12	9/18	9/18	9/26	9/26	10/3	10/3	10/10	10/10	10/17	10/17	10/24	10/24
Bombay	8/14	8/14	9/24	9/21	9/28	9/28	10/5	10/5	10/12	10/12	10/19	10/19	10/26	10/26	11/2	11/2
Cochin	8/17	8/17	9/24	9/24	10/1	10/1	10/8	10/8	10/15	10/15	10/22	10/22	10/29	10/29	11/5	11/5
Tuticorin	8/16	8/16	9/23	9/23	9/30	9/30	10/7	10/7	10/14	10/14	10/21	10/21	10/28	10/28	11/4	11/4
Madras	8/6	8/6	9/13	9/13	9/20	9/20	9/27	9/27	10/4	10/4	10/11	10/11	10/18	10/18	10/25	10/25
Chittagong	8/8	8/8	9/13	9/13	9/20	9/20	9/27	9/27	10/4	10/4	10/11	10/11	10/18	10/18	10/25	10/25
Dubai/Jebel Ali	8/11	8/11	9/18	9/18	9/25	9/25	10/2	10/2	10/9	10/9	10/16	10/16	10/23	10/23	10/30	10/30
Dhargah	8/11	8/11	9/18	9/18	9/25	9/25	10/2	10/2	10/9	10/9	10/16	10/16	10/23	10/23	10/30	10/30
Abu Dhabi	8/12	8/12	9/18	9/18	9/26	9/26	10/3	10/3	10/10	10/10	10/17	10/17	10/24	10/24	11/1	11/1
Muscat	8/13	8/13	9/20	9/20	9/27	9/27	10/4	10/4	10/11	10/11	10/18	10/18	10/25	10/25	11/1	11/1
Bahrain	8/14	8/14	9/21	9/21	9/28	9/28	10/5	10/5	10/12	10/12	10/19	10/19	10/26	10/26	11/2	11/2
Kuwait	8/16	8/16	9/22	9/22	9/30	9/30	10/7	10/7	10/14	10/14	10/21	10/21	10/28	10/28	11/4	11/4
Damman	8/15	8/15	9/22	9/22	9/29	9/29	10/6	10/6	10/13	10/13	10/20	10/20	10/27	10/27	11/3	11/3
Karachi	8/14	8/14	9/21	9/21	9/28	9/28	10/5	10/5	10/12	10/12	10/19	10/19	10/26	10/26	11/3	11/3
Doha	8/12	8/12	9/19	9/19	9/26	9/26	10/3	10/3	10/10	10/10	10/17	10/17	10/24	10/24	10/31	10/31

ATLANTIC DIVISION LANDBRIDGE SERVICE

Outbound — North America to N. Europe/Mediterranean

SEA-LAND BRIDGE DEPARTURES	North Atlantic/West Coast/Canada					Atlantic to Mediterranean					South Atlantic/Gulf/West Coast				
Long Beach											8/ 3	8/10	8/17	8/24	8/31
Oakland											8/ 2	8/ 9	8/16	8/23	8/30
Vanc. B.C.	8/12	8/19	8/26	9/ 2	9/ 9	8/ 5	8/16	8/27	9/ 7	9/18					
Tacoma	8/13	8/20	8/27	9/ 3	9/10	8/ 6	8/17	8/28	9/ 8	9/19					
SAILS															
Fl. Everglades											8/ 5	8/12	8/19	8/26	8/ 2
Houston											8/ 8	8/15	8/22	8/29	8/ 5
N. Orleans ^(A)											8/ 8	8/13	8/20	8/27	8/ 3
Boston	8/15	8/22	8/29	9/ 5	9/12	8/11	8/22	9/ 2	8/13	8/24					
Baltimore	8/17	8/24	8/31	9/ 7	9/14	8/11	8/22	9/ 2	8/13	8/24					
New York ^(B)	8/18	8/26	9/ 2	9/ 9	9/16	8/13	8/24	9/ 4	8/16	8/26					
Wilm. NC															
Charleston						8/17	8/28	9/ 8	8/19	9/30	8/13	8/20	8/27	9/ 3	8/10
Jax											8/12	8/19	8/26	9/ 2	8/ 9
Portsmouth	8/21	8/28	9/ 4	9/11	9/18	8/15	8/26	9/ 6	8/17	9/28					
LINEHAUL VESSEL & VOYAGE															
	NEW YORK DISE	QUALITY DISE	HOLLAND DISE	INTEGRITY DISE	NEW YORK DISE	ACHIEVER DISE	VALUE DISE	PALEIGH BAY DISE	ACHIEVER DISE	VALUE DISE	PERFOR- MANCE DISE	ATLANTIC DISE	COMMITMENT DISE	GALVESTON BAY DISE	HUDSON DISE
ARRIVES															
Rotterdam ^(C)	8/ 2	8/ 9	8/16	8/23	8/30						8/23	8/30	8/ 6	8/13	8/20
Bremerhaven ^(D)	8/30	9/ 6	9/13	9/20	8/27						8/25	9/ 1	9/ 8	9/15	8/22
Antwerp	8/ 4	8/11	8/18	8/25	10/ 2						8/25	9/ 1	9/ 8	9/15	8/22
Walhamn	8/ 4	8/11	8/18	8/25	10/ 2						8/28	9/ 4	9/11	9/18	8/25
Felixstowe ^(E)	8/ 1	8/ 8	8/15	8/22	8/29						8/27	9/ 3	9/10	9/17	8/24
Aarhus	8/ 6	8/13	8/20	8/27	10/ 4						8/30	9/ 6	9/13	9/20	8/27
Bilbao	8/12	8/19	8/26	10/ 3	10/10						8/28	9/ 5	9/12	9/19	8/26
Lisbon	8/12	8/19	8/26	10/ 3	10/10						8/29	9/ 5	9/12	9/19	8/26
Grangemouth	8/ 2	8/ 9	8/16	8/23	8/30						8/31	9/ 7	9/14	9/21	8/28
Genoa						8/30	8/10	9/21	10/ 2	10/13	9/ 3	9/10	9/17	9/24	10/ 1
Dublin	8/ 7	8/14	8/21	8/28	10/ 5						8/30	9/ 6	9/13	9/20	8/27
Le Havre	8/ 5	8/12	8/19	8/26	10/ 6						8/25	9/ 1	9/ 8	9/15	8/22
Lisboas/Oporto	8/13	8/20	8/27	10/ 4	10/11						8/31	9/ 7	9/14	9/21	8/28
Algeciras ^(F)						8/25	8/ 5	9/16	8/27	10/ 8	8/31	9/ 7	9/14	9/21	8/28
Valencia						8/12	8/13	9/24	10/ 5	10/16	8/31	9/ 7	9/14	9/21	8/28
Leghorn						8/28	8/ 8	9/19	9/30	10/11	9/11	9/18	9/25	10/ 2	10/ 9
FOS						8/31	9/11	9/22	10/ 3	10/14	9/ 7	9/14	9/21	9/28	10/ 5
Barcelona						8/28	8/12	9/19	10/ 3	10/17	9/ 5	9/12	9/19	9/26	10/ 3
Piraeus						8/15	8/12	8/26	10/ 3	10/17	9/ 5	9/12	9/19	9/26	10/ 3
Naples						8/10	8/16	10/ 2	10/ 8	10/22	8/10	8/17	8/24	10/ 1	10/ 8

===== A DOD STUDY OF MILITARY COMMISSARIES =====



AMERICAN PRESIDENT LINES, LTD.

Part of the American President Companies group.

August 17, 1989

Mr. Mac Frampton
Jones Commission
1211 Fern Street
Cafritz Building, rm. #A-100
Arlington, VA. 22202

Dear Mr. Frampton:

APL Service to Asia

Further to our conversation of this morning, we are pleased to provide the following information on our service to Asia.

We are also enclosing some brochures on our company which we trust you will find informative.

U.S.A. Port of Loading: San Pedro and Oakland, CA.; Seattle, WA.

Asian Discharge Ports

Transit time from Oakland

Japan - Yokohama	9 days
Kobe	10 days
Korea - Pusan	15 days
Okinawa -	18 days
Phillipines - Manila	21 days
Guam -	10 days
Australia - Sydney	21 days *
- Melbourne	25 days *
Hawaii -	APL service pending gov't approval

* via relay service over Japan

I would be pleased to discuss this information in greater detail as well as the other opportunities that American President Companies might be able to offer.

Sincerely yours,

Douglas Cole
Manager,
Government Sales/Service

Appendix E

SERVICE LEVELS

=== A DOD STUDY OF MILITARY COMMISSARIES ===

APPENDIX E

Minimum Levels of Customer Service for DOD Commissaries are included in this appendix. This is a comprehensive list of specific services that must be made available to all customers regardless of commissary location, and furnishes the basis for providing customers with a convenient and pleasant shopping environment.

MINIMUM LEVELS OF CUSTOMER SERVICE

SECTION 1 - STORE EXTERIOR

A. PARKING LOT

1. Paved.
2. Lighted.
3. Parking lot entrances & exits adequately lighted.
4. Spaces marked (min. 8.6 ft. width, but 9 ft. preferred).
5. Traffic pattern indicated.
6. Reserved spaces for the handicapped.
7. Reserved spaces for employees (areas of least convenience to customers).
8. Delivery vehicles not blocking traffic flow.
9. Trash receptacles positioned throughout.
10. Parking lot inspected hourly during sales hours by designated personnel to ensure cleanliness, retrieval of carry-out carts and absence of safety hazards.
11. Designated area for carry-out carts.
12. Pick-up lane, properly marked and kept clean, located near exit doors.

B. ENTRANCES/EXITS

1. Store entrance & exits prominently identified.
2. Automatic entrance & exit doors provided with door guards (not required with sliding automatic doors).
3. Automatic door must be clean and in good operating condition.
4. Minimum of one exit for every six to eight checkout stands.

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5. Sufficient delivery doors to preclude use of customer entrance & exits for deliveries during sales hours.

6. Mats provided at entrance for cleaning of shoes during inclement weather.

7. Windguards and baffles at entrances & exits where there are no vestibules.

8. Doors equipped with safety glass.

9. Plate glass windows protected from carts by bumper rails.

C. HOURS OF OPERATION

1. Prominently posted.

2. Visible from exterior of the store.

D. CUSTOMER CONVENIENCE

1. Canopies or enclosed areas to protect waiting customers from the elements.

2. Carry-out service provided.

SECTION 2 - STORE INTERIOR

A. OPERATING HOURS

1. Open late at least one night per week.

2. Customers allowed adequate time after closing to conclude shopping.

3. Customers notified at least two weeks in advance of all store closing or changes in store hours. (Use public address system and local media).

4. Convenience of store hours reviewed at least semiannually.

B. SHOPPING CARTS AND BASKETS

1. At least 12 shopping carts in operating order per checkstand.

2. Shopping carts equipped with bottom racks, plastic handles, baby seats (plated vice painted).

3. Shopping carts, visibly different from carry-out carts, not permitted to leave the sales floor.

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4. Shopping carts steam-cleaned semi-annually.
5. At least 5 hand-carry shopping baskets per checkstand.
6. At least 4 carry-out carts in operating condition per checkstand.
7. Register operators will check bottom of carts for merchandise.

C. CUSTOMER SERVICE

1. Pay telephone.
2. Separate rest rooms, for men and women, prominently identified.
3. Customer newsletter published and distributed at least quarterly.
4. Local newspaper used to publicize commissary operations.
5. Music and/or message repeater system used.
6. Floor diagram/shopping list/general information.
7. Comfortable visitor waiting area near the front of the store.
8. Bulletin board kept current.
9. Customer awareness Program implemented.
10. Water fountains conveniently placed.
11. Water fountains cleaned at least twice daily.
12. Commissary location listed in station directory; adequate directional road signs installed within constraints imposed by the host command.
13. Express lane, limited to 15 items, provided.
14. Public address system available for announcements on behalf of customers.
15. Adequate fire stations prominently marked.
16. Shopping traffic pattern indicated.
17. Adequate overhead lighting (at least 80 foot-candles).
18. Walls and floors of light, pleasant colors.

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19. Clocks properly positioned and maintained for correct time.

20. Floors and aisles clean and free of debris.

D. OTHER OPERATING REQUIREMENTS

1. Regulation concerning entry requirements posted near entrance.

2. Information on refund, check-cashing, vendor coupon and food stamp procedures posted near entrance.

3. Refund and check-cashing procedures observed.

4. Bad-check list maintained in confidence.

5. Store appropriately decorated for all major holidays and sales promotions.

6. Signing attractive and permanently installed.

7. Replies furnished on all customer suggestions.

8. Access of vendors to sales area rigidly controlled.

9. Customers permitted reasonable access to supervisors.

10. Warehouse and preparation rooms prominently identified; signs prominently displayed prohibiting the entry of unauthorized persons.

11. Store inspected at least semiannually for compliance with weights and measures regulations.

12. Temperature checks, on a prescribed schedule, of all refrigerated spaces and display cases or alarm system.

13. Sales area inspected at least hourly for removal of safety hazards, e.g., spills and loose cardboard.

14. Health and sanitation inspection by qualified personnel at least twice a month.

15. Veterinary Services or local medical department used to inspect merchandise for quality.

16. Objectional odors promptly investigated and remedial action taken.

17. Smoking prohibited except in lounge areas.

18. Employees not permitted to smoke in sales or preparation

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areas.

19. All cleaning gear stowed out of view of customers.
20. Prominent photographic identification of commissary officer and departmental supervisors.
21. Meeting of commissary management with wives clubs and other customer representative organizations at least quarterly.
22. Sales area temperature to be maintained between 70 - 75 degrees F; relative humidity less than 55% because of refrigeration requirements.
23. Markdowns made available on an equal basis to all authorized customers, with no special consideration given to any group of customers (e.g., employees).
24. Markdown sales area prominently identified and clean.
25. All markdown items properly identified and neatly displayed.
26. Markdown items to be salable (no swollen cans; no infested or mutilated packages).
27. All orders for authorized customers (including employees) packaged and removed from store immediately after purchase.

E. GROCERY DEPARTMENT

1. Merchandise (All categories authorized by DOD 1330.17 will be carried.
 - (a) Dry grocery products checked daily for freshness; all outdated merchandise removed from sale (rotation of product,).
 - (b) An overall in-stock position of 95% maintained on the sales-floor at all times.
 - (c) 100% in-stock position maintained on designated master stock assortment items.
 - (d) Dry grocery items checked at least twice daily for out-of-stock conditions and remedial actions taken.
 - (e) Height of products displayed on shelves not to exceed 72 inches from floor level.
 - (f) Tray-packing policy and procedures established by HQ enforced.
 - (g) Daily inspection periods for tray-pack cardboard removal.

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(h) Stock inspected twice daily for salability (dented cans, cans without labels, torn packages).

(i) All labels properly faced.

(j) All priced items clearly marked and labeled on shelf.

(k) Inspection schedule established to ensure that prices shown on shelves and items are inspected for accuracy and legibility at least once a week.

(l) Weekly promotions prominently displayed.

(m) Customers notified of new items by proper signs at shelf locations and at auxiliary display locations.

(n) Space allocation for each item reviewed quarterly.

(o) Shelves dusted and cleaned as needed.

2. Dairy

(a) Merchandise checked at least daily for date-codes, mold, salable appearance and proper rotation.

(b) Display cases meticulously clean.

(c) Broken, damaged, and leaky containers promptly removed.

(d) Continuous inspection for in-stock status.

(e) Insulated bags for ice cream provided at checkout.

3. Bakery

(a) Designated employee to check product freshness daily.

(b) Bakery shelving cleaned daily.

(c) Continuous inspection for in-stock status and salable appearance.

4. Other

(a) Attractive bases (no uncovered shipping pallets) used for floor displays.

(b) No obstruction in sales-floor aisles.

(c) No unattended stock in sales-floor aisles.

(d) All stocking during sales hours performed from narrow wheeled carts.

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(e) Majority of shelf stocking accomplished during nonsales hours.

(f) Attractive aisle directory signing to identify the locations of commodity groups.

5. Meat Department

(a) The following constitutes the minimum merchandise selection available to all patrons:

(1) Beef: 30 cuts

(2) Fresh/frozen pork: 8 cuts

(3) Smoked meats: 4 cuts

(4) Veal: 2 cuts when displayed

(5) Lamb: 2 cuts when displayed

(6) Poultry: Whole & Part: 12 cuts

(b) Specific Meat Items Never Out-of-Stock:

(1) Ground Beef:

(2) Sirloin steak or round steak.

(3) T-Bone steak or porterhouse steak.

(4) Dry heat beef roast.

(5) Stew beef.

(6) Moist heat beef roast.

(7) Pork roast.

(8) Pork chops.

(9) Ham: boneless, shank or butt.

(10) Chicken, whole.

(11) Turkey, whole.

(c) Meat Cases Inspected Hourly For:

(1) Cleanliness.

(2) Adequate variety available.

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cards. (3) Weekly feature prominently displayed with price

(4) Unsalable merchandise.

(5) Freshness of merchandise.

(6) Discoloration.

(7) Broken, sloppy, leaking packages.

(8) Excessive bleeding.

(9) Improper trim.

(10) Proper nomenclature and grade (retain cut description).

(11) Clear and proper pricing.

(d) Meat cuts adequately scraped to eliminate bone dust and fat particles.

(e) White foam trays used for packaging.

(f) Daily spot-checks for accurate weights and proper application of tare.

(g) Posting and enforcement of smoking prohibition rule in meat preparation, storage and display areas.

(h) Nearby commercial supermarkets surveyed at least once quarterly to compare prices of high-demand items and to determine merchandising trends (CONUS only).

(i) Display case lighting adequate, enhancing appearance of items on display.

(j) Special order policy and procedures prominently displayed.

(k) Paper towels conveniently available to customers.

(l) Display cases sectionalized by commodity groups.

(m) Commodity groups identified by channel indicators (e.g., beef steaks, beef roasts, etc.).

(n) When meat, poultry, or fish items are store-weighed and packaged, a two or three-character alphabetic, or numeric, customer-readable date code on the label.

H. PRODUCE DEPARTMENT

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1. The following constitutes the minimum merchandise selection available to all patrons:

- (a) Fresh vegetables: 29
- (b) Fresh fruits: 26
- (c) Nuts in shell: 5
- (d) Refrigerated salad dressing: 3

2. Produce properly rotated in storage area.

3. Specific produce items never-out-of stock (U.S. stores only):

- (a) Potatoes
- (b) Onions (dry)
- (c) Cabbage
- (d) Carrots
- (e) Lettuce
- (f) Tomatoes
- (g) Broccoli
- (h) Celery
- (i) Apples
- (j) Oranges
- (k) Bananas

4. Produce bins & cases checked frequently for:

- (a) Selection.
- (b) Salability (eye appeal, freshness, intact packages).

5. Merchandise attractively arranged with colors contrasted.

6. Produce cases and bins inspected prior to opening and at least at one other time during the day of cleanliness.

7. Produce cases for perishable merchandise equipped with spray hose.

8. Where merchandise is sold by individual units, poly bags readily available for patrons.

Appendix F

GLOSSARY OF DEFINITIONS/ABBREVIATIONS

≡≡≡ A DOD STUDY OF MILITARY COMMISSARIES ≡≡≡

GLOSSARY

DEFINITIONS

AUTHORIZED COMMISSARY PATRON - Individuals, organizations, and activities specified in paragraph 2-101.1 through 2-101.19 of DoD Directive 1330.17R, Armed Services Commissary Regulations.

BLANKET DELIVERY ORDER - A simplified procurement method of filling anticipated repetitive requirements for items covered by an existing contract which is used for subsistence items that are procured based on a specification or purchase description without regard to a specific brand name (eg. bread, milk, eggs).

BLANKET PURCHASE AGREEMENT - A simplified procurement method of filling anticipated repetitive requirements for small quantities of items which are not covered by an existing contract. BPAs are issued for brand name subsistence/resale items that are selected for stockage based on customer preference as well as non brand name items that are procured by purchase descriptions, without regard to a specific brand name.

COMMERCIAL ACTIVITY - Office of Management and Budget Circular A.76 requires that private sector services be used to provide service to Government agencies, when these services can be obtained for at least ten percent savings below government cost.

COMMERCIAL ONE STEP DESIGN BUILD - A procedure similar to Design Build except that the RFP contains less specific guidance so the contractor has more latitude in designing the store.

CONTRACT AUTHORITY - The authority given an agency to contract for construction of new commissaries or improvements to existing commissaries prior to realization of revenues necessary to repay the obligations.

COST PRICE - The unit price of an item at the time it is purchased from the manufacturer based on signed monthly price quotes provided by the manufacturer. This price is effective for the calendar month period (the 1st to the 31st of the month) or until the manufacturer provides a new price.

DEFENSE DATA NETWORK - A long haul (long line) DoD network used for the transmission of data.

DESIGN BUILD - A procurement process used to design and construct commissaries. A Request for Proposal (RFP), containing specific parameters, is furnished to construction contractors as a basis to be used to submit their proposals.

ELECTRONIC DATA INTERCHANGE - A network of subscribers whose membership can exchange data.

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ELECTRONIC FUNDS TRANSFER - The capability to transfer funds by members to other members on a subscriber network.

EXTENDED HOURS CONCEPT - TSA initiative to increase total available hours of full service commissary shopping during peak demand evening hours by closing the commissary one day a week and reallocating those hours.

FULL-TIME EQUIVALENT - One full-time manpower authorization equating to 2087 hours per year.

DEPARTMENT OF DEFENSE RESALE EXECUTIVE BOARD - A permanent board, responsible to the Secretary through the Assistant Secretary of Defense, Force Management and Personnel for recommending broad policy guidance, including proposing goals for Military Departments in the operation of their resale systems.

MASTER STOCK LIST - Brand name products which have national distribution and are considered essential to support customer demand. The MSL assures a commodity of product mix in each store.

MILITARY PERSONNEL ACCOUNT - Appropriated fund that pays for military personnel used in the commissary system.

"MINI MART" - A TSA supplemental commissary service which offers extended hours in the main commissary with one to four cash registers and limited to those items still on the shelf. The store is not restocked for these hours.

NON-APPROPRIATED FUND EMPLOYEE - An employee of a non-appropriated fund instrumentality whose salary and benefits are paid from sources other than monies appropriated by the Congress of the United States, and which are not recorded in the books of the Treasury of the United States.

OPERATIONS AND MAINTENANCE FUND - Appropriated funds that finance common operating costs of the commissary stores other than unique operating expenses to include civilian personnel wages, utilities, shipment of stock funded inventories between commissary units, training, Automated Data Processing (ADP) support, Temporary Duty (TDY), and transportation of resale merchandise from the Port of Embarkation (POE) to designated warehouses or stores.

PERIPHERALS - Automatic data processing equipment used in support of computer processing such as tape drives, key entry, and CRTs.

PLAN-O-GRAMS - A detailed schematic of item location on a shelf set to expedite traffic flow, reduce out of stocks and excess inventory, and provide optimum use of shelf-space.

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PROGRAM OBJECTIVE MEMORANDUM - Formal transmittal to OSD of all programs for resource allocation and consonance with proper guidance. POM decides all aspects of any programs which are designed to increase operational readiness. It highlights forces, manpower, training, material acquisition and logistical support required to meet the strategies and objectives of the services.

PROTOCOLS - A communications term that describes rules or procedures which enables the transfer of data.

REMOTE AND ISOLATED INSTALLATIONS - DOD designated installations where all Morale, Welfare and Recreation activities are eligible to receive appropriated money.

SELF SCANNING - A process that permits customers to scan their groceries and designed to reduce congestion in the front-end while reducing operating costs. Two checkers can effectively monitor six self-scanning lanes.

SELLING PRICE - The unit shelf price of an item at which it is sold to the customer. It is the same as the cost price at which purchased or rounded up by one cent if the cost price is in uneven cents. However, for NAVRESSO only, the effective date of a selling price is always made for the Sunday after the receipt of the order at the new cost price to accommodate:

- o Regionally centralized pricing, so that all stores and the distribution centers have the same price on an item at the same time when breakouts are made.

- o Physical inventory price change adjustments which are made to revalue the inventory to the new price.

STOCK FUND - A revolving fund initially capitalized by Congress which is used to order and pay for the inventory sold in commissary stores and which is replenished from the proceeds of sales.

SUTLER - A local merchant contracted with by the Army in early years of our country who supplied provisions to the soldier in the field at greatly inflated prices. This contributed to the establishment of the Military Subsistence Department.

SYMETRIC HARDWARE - Identical automatic data processing equipment that can be controlled from a distant site.

TRUST REVOLVING FUND - A DOD fund created by adding a 5 percent surcharge to commissary goods sold to patrons. This fund is used to finance unique commissary store expenses such as equipment maintenance and repair, telephone charges, certain consumable supplies such as carts, bags and other services. Additionally, this fund finances procurement of new equipment and construction of new or expanded facilities.

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VENDOR STOCKING - An authorized list of commissary items that are stocked on the shelves by the vendors or their representatives.

"WEE SERV" - A supplemental commissary service provided by AFCONS in a seperate building attached to the regular commissary with one to three cash registers and their own entrances/exits which duplicates an assortment of 700 - 1200 basic items, carried in the commissary.

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GLOSSARY

ABBREVIATIONS

AAFES	-	Army Air Force Exchange Service
A&E	-	Architectural and Engineering
ACAPS	-	Automated Commissary and Accounting Procurement System
ACAS	-	Army Commissary Automation System
ACOS	-	Automated Commissary Operations Systems
ACS	-	Automated Commissary System
ADCOM	-	Advanced Distribution Communications
AFCOMS	-	Air Force Commissary Service
AIS	-	Automated Information System
ALA	-	American Logistics Association
ASAC	-	Automated Systems For Army Commissaries
ATS	-	Application Transfer Study
BCE	-	Base Civil Engineer
CAIRS	-	Commissary Automated Information Requirement Study
CAMIS	-	Commissary Automated Management Information System
CAMNET	-	Commissary Automated Management Network
CDC	-	Central Distribution Center
CFCI	-	Contractor Furnished, Contractor Installed
CMIS	-	Commissary Management Information System
C of E	-	Corps of Engineers
COINS	-	Commissary Overseas Inventory Control Navy System
COMNAVSUPSYSCOM	-	Commander Naval Supply Systems Command
CRT	-	Cathode Ray Tube

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CTRF	-	Commissary Trust Revolving Fund
DA DCSLOG	-	Department of the Army, Deputy Chief of Staff, Logistics
DASRC	-	Department of the Army Subistence Review Committee
DCS\I&L	-	Deputy Chief of Staff for Installations and and Logistics
DDMP	-	Defense Depot Mechanicsburg, Pa.
DDN	-	Defense Data Network
DDTC	-	Defense Depot Tracy, Calif.
DE	-	District Engineer
DECS	-	Defense Commissary System
DEH	-	Director, Engineering and Housing
DICOMSS	-	Direct Commissary Support System
DLA	-	Defense Logistics Agency
DODREB	-	Department of Defense Resale Executive Board
DOSS	-	District Oriented Store Systems
DPSC	-	Defense Personnel Support Center
DSD	-	Direct Store Delivery
DSO	-	Defense Subsistence Office
DSSF-B	-	Defense Subsistence Storage Facility; Bremenhaven, Germany
DSSF-G	-	Defense Subsistence Storage Facility; Germersheim, Germany
DSSF-K	-	Defense Subsistence Storage Facility; Kaiserslautern, Germany
DVD	-	Direct Vendor Delivery
EDI	-	Electronic Data Interchange
EFT	-	Electronic Funds Transfer

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EPOS	-	Electronic Point of Sale
FA&O	-	Finance and Accounting Office
FF&V	-	Fresh Fruits and Vegetables
FIFO	-	First In - First Out
FTE	-	Full Time Equivalent
HASC	-	House Armed Services Committee
HQMC	-	Headquarters Marine Corps
IAP	-	Information Architecture Plan
IAV	-	Inventory Adjustment Voucher
ICS	-	Interactive Checkout System
ISSA	-	Intra-Service Support Agreement
JOA	-	Journal of Adjustments
JOR	-	Journal of Receipts
LTL	-	Less-Than-Truckload
MACOM	-	Major Command - Army
MAJCOM	-	Major Command - Air Force
MAMI	-	Military Audits of Marketing Information
MCIP	-	Minor Construction Improvements Program
MHE	-	Material Handling Equipment
MILSTRIP	-	Military Standard Requisitioning and Issue Procedures
MOU	-	Memorandum of Understanding
MRC/CMP	-	Meat Room Controller/Central Meat Pricing
MRO	-	Material Release Order
MSL	-	Master Stock List
NAF	-	Non-Appropriated Funded
NAVFACENGCOM	-	Naval Facilities Engineering Command

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NAVRESSO	-	Navy Resale & Services Support Office
NCR	-	National Cash Register
NIS	-	Not In Stock
NISH	-	National Institute for the Severely Handicapped
NSN	-	National Stock Number
O&M	-	Operations and Maintenance Funds
OCE	-	Office of the Chief of Engineers
OST	-	Order Ship Time
P2P	-	Processor to Processor
PDA	-	Procurement Defense Agencies
PDED	-	Portable Data Entry Device
PIP	-	Permanent Improvement Projects
PLU	-	Price Look Up
POM	-	Program Objective Memorandum
PSF	-	Public Sector Financing
PVA	-	Price Variance Account
PWO	-	Public Works Office
RBS	-	Remote Batch Systems
RFP	-	Request for Proposal
RPIE	-	Real Property Installed Equipment
RSL	-	Regional Stock List
SAMI	-	Selling Areas Marketing Information
SAVES	-	Standard Automated Voucher Examination Systems
SCS	-	Service Center System
SPC	-	Sell Price Change
SPCED	-	Selling Price Change Effective Date
SSL	-	Store Stock List

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STANFINS	-	Standard Army Financial System
TRACS	-	Total Reporting Accounting and Communications Systems
TRF	-	Trust Revolving Fund
TSA	-	Troop Support Agency
TSAMIS	-	Troop Support Agency Management Information System
UCS	-	Uniform Communication Standards
UPC	-	Universal Product Code
VPR	-	Voluntary Price Reduction

Appendix G

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Appendix H

SITES VISITED

===== A DOD STUDY OF MILITARY COMMISSARIES =====

SITES VISITED

26 April - Ft Myers Commissary

1 May - Giant Store, Bailey's Crossroads, Va.

2 May - Ft Belvoir Commissary, Va.

4 May - Andrews Commissary

 Annapolis Commissary

8 May - Navy Resale & Services Support Office
 (NAVRESSO) Command Brief

9 May - Twin County Grocers, Edison, NJ
 Distribution for Foodtown Supermarkets

 - West Point Commissary, NY

10 May - Defense Personnel Support Center (DPSC)
 Command Brief

11 May - Defense Depot Mechanicsburg, PA (DDMP)

 NAVRESSO Field Support Office (FSO) Mechanicsburg

16 May - Army & Air Force Exchange Service
 (AAFES) Command Brief

17 May - Troop Support Agency (TSA) Midwestern Region

18 May - Air Force Commissary System (AFCOMS)-
 South Central Region

 Lackland & Brooks Commissaries

18-19 May - AFCOMS Command Brief

24 May - Marine Corps Command Brief

30 May - TSA Command Brief

31 May - TSA - Southeast Region

5 June - AAFES - Dan Daniels Distribution Center
 Newport News, Va.

6 June - Langley Commissary

 Military Distributors of Virginia

===== A DOD STUDY OF MILITARY COMMISSARIES =====

7 June - Little Creek and Norfolk Commissaries
NAVRESSOFSO Norfolk Brief

8 June - (MCAS) Cherry Point Commissary, N.C.

9 June - MC East Coast Complex, Distribution Center
Camp LeJeune, NC

28-29 June - AFCOMS North Central Region Brief
Omaha, Nebraska

17 July - Defense Subsistence Region Europe, Zweibreucken,
Germany

18 July - TSA Europe Region Brief, Zweibreucken
AFCOMS Europe Region Brief, Ramstein
Ramstein Commissary

19 July - Kaiserslautern Cold Storage
Germersheim Depot

20 July - AAFES Europe Distribution Facility, Giessen
District
Giessen, Bad Hersfeld, and Fulda Commissaries
Heidelberg District and Heidelberg Commissary
Mannheim-Spinelli Distribution Center
Mannheim Commissary

21 July - Wildflecken (plus annex), Bad Kissingen,
Schweinfurt, and Aschaffenburg Commissaries
Robinson Barracks, Patch Barracks, and Hanau
Commissaries
Director, Stuggart District

22 July - Bitburg, Spangdahlem, Trier, Rhein Main, Camp King
and Frankfurt Commissaries
Director, Frankfurt District

24 July - Hanau Army Commissary

===== A DOD STUDY OF MILITARY COMMISSARIES =====

25 July - Navy West Ruislip combined Exchange/Commissary
Navy ResaleAct Dunstable and Distribution
Center
Cromwell, Truemper, Levy, Parkee and Woodsmall
Inc. - Architectural Firm, Little Rock, Arkansas

26 July - Lakenheath HQ Complex
Lakenheath, Alconbury, and Bentwaters Commissaries
Defense Subsistance Office (DSO) Felixstowe

31 July - Ft Sheridan Commissary, IL

9 Aug - Southeastern Bonded Warehouse Inc., Atlanta, Ga.
Proctor and Gamble Distribution Center

22-24 Aug - Super Valu Headquarters, Minneapolis, Mn.

30 Aug - Bonus Foods, Dumphries, Va.
RichFood, Richmond, Va.

Appendix I

STUDY CONTRIBUTORS

=== A DOD STUDY OF MILITARY COMMISSARIES ===

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HEADQUARTERS TROOP SUPPORT AGENCY (TSA), FORT LEE, VA

BG James S. Hayes	Commander
Mr. Charles E. Fulmore	Deputy to the Commander
COL Bill G. Belcher	Chief of Staff
Mr. Gary Lutz	Director, Resource Management
Ms. Ann Andrews	Chief Accounting and Finance Division
Mr. Winfred L. Hasty, III	Chief, Civilian Personnel Staff Office
Mr. Faron Woodard	Facility Construction Officer
Mr. Hugh M. Hodges, Jr.	Director of Commissary Operations
COL Stephen L. Weisel	Director of Information Systems
COL Cesar R. E. Morel	Director of Engineering and Material
Mr. Crosby H. Johnson	Chief, Acquisition Management Office
Mr. James Austin	Deputy Director, Information Systems
Ms. Dee Klepper	Chief, CMD OPS, Plans and Support Division
Ms. Mary Atwater	Management Analyst, CPED
Ms. Rosie Parkes	Chief, Commissary System Division
Ms. Nadine Lewis	Commissary Management Specialist, Operations Division
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Mr. Chet Boutelle	Chief, Operations Division

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Mr. Bob Waterhouse	Commissary Manager
Fort Myer, VA	
Mr. Jerry Clark	Commissary Manager
Fort Sheridan, IL	
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Mr. Delmar Craig	Deputy Director
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Mr. John Loughlin	Chief, Information Systems Division
Mr. Paul Rubio	Chief, Logistics Management Division
Ms. Marietta Pritchard	Chief, Contracting Division
Mr. Jerry Brazil	Chief, Operations Branch
Mr. Robert Richardson	Chief, Merchandise Management Branch
Ms. Chris Windsor	Chief, Budget Branch
Ms. Jean Doonan	Chief, Accounting Branch
Mr. Robert Martinez	Chief, Management Branch
Mr. John Trevino	Chief, Personnel and Training Branch

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Mr. Richard L. Brown

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NAVRESSOFSO Oakland, CA	
CAPT James Kopp, SC, USN	Commanding Officer
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Mr. Sonny Tudor	Commissary Manager
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LT Jack Lingard, SC, USN	Commissary Manager

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OTHER CONTRIBUTORS

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Mr. Lars E. Peterson	Senior Government Relations Representative, Food Marketing Institute
Mr. Richard E. Bondareff	President Bonfeld, Inc.
Mr. Richard Petrey	Bonus Food Stores
Mr. Edgar E. Poore	Rich Foods
Mr. Daniel Dell	Penske Truck Leasing Co. Alexandria, VA
Mr. Douglas Cole	Manager, Government Sales/Service American President Lines, Ltd.
Mr. Charles Post	Manager, Government Sales Sea-Land Service, Inc.

Thanks to all others unnamed who have also contributed to this study.

===== A DOD STUDY OF MILITARY COMMISSARIES =====

Appendix J

CENTRAL DISTRIBUTION CENTER/INFORMATION AND COST

===== A DOD STUDY OF MILITARY COMMISSARIES =====

**THE
DORNBUSH
GROUP**

5160 Phillip Lee Drive, S.W.
Atlanta, Georgia 30378
(404) 691-4031

August 17, 1989

Eldridge J. Vincent, Jr., LTC, USA
Deputy Staff Director
Jones Commission
1211 Fern Street, Room A-100
Arlington, VA 22202

Dear Col. Vincent:

Attached please find our "initial pass" at transportation and warehousing costs for distributing dry goods to DOD Commissaries for the southeastern U.S.

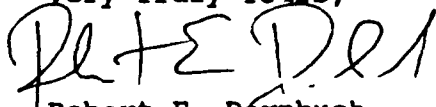
We are very comfortable with the transportation numbers, and believe the warehouse numbers are also very close---based on a general mix of grocery-type commodities.

If you need any further information on the southeast, please let us know. Otherwise, we shall be very interested in learning the results of your study, as they are available to the public.

We are working diligently on the bases in Germany, the Netherlands, Belgium and the U.K. We will be serving the first three countries out of facilities in Germany (4 locations), and the U.K. from the U.K. I hope we shall have this information for you next week.

Thank you for your interest.

Very Truly Yours,



Robert E. Dornbush
President and CEO
The Dornbush Group

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) SOUTHEASTERN UNITED STATES

I. TRANSPORTATION COSTS (DOMESTIC)

SERVICE	COMMISSARY STORE	ST/ CNTRY	ZIP	PER VAN	TOTAL PER MONTH
** SERVICE COMPONENT AF					
AF	MAXWELL	AL	36112	\$350.00	\$7,350.00
AF	GUNTER	AL	36114	\$350.00	\$3,150.00
AF	DATTON	FL	32025	\$718.50	\$22,992.00
AF	TYNDALL	FL	32403	\$427.50	\$7,695.00
AF	HURLBURT FIELD	FL	32542	\$481.50	\$6,259.50
AF	HOMESTEAD	FL	33039	\$1,020.00	\$25,500.00
AF	ELGIN	FL	32542	\$481.50	\$14,445.00
AF	AVON PARK	FL	33825	\$718.50	\$718.50
AF	MACDILL	FL	33608	\$673.50	\$34,348.50
AF	MOODY	GA	31699	\$436.00	\$3,924.00
AF	ROBINS	GA	31098	\$284.00	\$4,544.00
AF	KEESLER AFB	MS	39534	\$504.39	\$14,627.31
AF	COLUMBUS AFB	MS	39701	\$350.00	\$2,800.00
AF	SHAW AFB	SC	29152	\$350.00	\$4,900.00
AF	MYRTLE BEACH AFB	SC	29577	\$350.00	\$3,150.00
AF	CHARLESTON AFB	SC	29404	\$455.37	\$11,384.25
AF	ARNOLD AFB	TN	37389	\$367.65	\$1,102.95
** Subtotal **					\$168,891.01
** SERVICE COMPONENT AR					
AR	HOWARD	CZ +		\$367.65	\$2,205.90
AR	ESPINAR	CZ +		\$367.65	\$1,102.95
AR	COROZAL	CZ +		\$367.65	\$7,353.00
AR	REDSTONE	AL	35898	\$350.00	\$700.00
AR	RUCKER	AL	36362	\$350.00	\$700.00
AR	MCCLELLAN	AL	36205	\$350.00	\$5,250.00
AR	STEWART	GA	31314	\$464.00	\$6,496.00
AR	HUNTER	GA	31409	\$464.00	\$4,640.00
AR	GORDON	GA	30905	\$396.00	\$8,712.00
AR	GILLEM	GA	30050	\$212.00	\$4,452.00
AR	MCPHERSON	GA	30330	\$212.00	\$848.00
AR	FORT BENNING	GA	31905	\$348.00	\$12,528.00
AR	HERRILL	GA	30533	\$212.00	\$212.00
AR	BUCHANAN	PR +		\$367.65	\$7,720.65
AR	JACKSON	SC	29207	\$350.00	\$8,750.00
** Subtotal **					\$71,670.50
** SERVICE COMPONENT MA					
MA	MCLB ALBANY	GA	31704	\$400.00	\$2,000.00
MA	PARRIS ISLAND	SC	29905	\$350.00	\$2,100.00
** Subtotal **					\$4,100.00
** SERVICE COMPONENT NA					
NA	BERMUDA	BH +		\$367.65	\$1,102.95

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) SOUTHEASTERN UNITED STATES

I. TRANSPORTATION COSTS (DOMESTIC)

SERVICE	COMMISSARY STORE	ST/ CNTRY	ZIP	PER VAN	TOTAL PER MONTH
NA	GUANTANAMO BAY	CU ++		\$459.00	\$2,295.00
NA	MAYPORT	FL	32228	\$459.00	\$4,590.00
NA	KEY WEST	FL	33040	\$1,201.00	\$4,804.00
NA	JACKSONVILLE	FL	32212	\$459.00	\$11,475.00
NA	ORLANDO	FL	32862	\$651.00	\$11,718.00
NA	CECIL FIELD	FL	32215	\$459.00	\$2,295.00
NA	KINGS BAY	GA	30600	\$400.00	\$1,200.00
NA	ATHENS	GA	30601	\$284.00	\$568.00
NA	ROSSEVELT RDS	PR +		\$367.65	\$2,573.55
NA	NWS CHARLESTON	SC	29405	\$367.65	\$3,308.85
NA	CHARLESTON	SC	29408	\$367.65	\$2,573.55
NA	PENSACOLA	FL	32508	\$481.50	\$10,111.50
NA	WHITING FIELD	FL	32570	\$435.50	\$1,306.50
NA	NEW ORLEANS	LA	70140	\$607.59	\$4,860.72
NA	GULFPORT	MS	39301	\$519.87	\$2,079.48
NA	MERIDIAN	MS	39301	\$375.39	\$1,126.17
NA	MEMPHIS	TN	38054	\$470.85	\$7,533.60
** Subtotal **					\$75,521.87
*** Total ***					\$320,183.38

+ Port of Charleston, SC
++ Port of Jacksonville, FL

II. WAREHOUSING COST:

In addition to the above transportation costs need to be added the following warehousing costs:

Based on the attached estimation of the receiving and order filling characteristics, product handling and storage requirements, we believe a first estimate of throughput warehouse handling costs would be approximately \$.16 per hundredweight.

Costs for storage space would be in addition to the above. In the current Atlanta market the fully allocated costs for warehousing space is approximately \$ 32,000 - \$ 33,000 per month per 100,000 gross square feet.

Based on pallet patterns of 45 - 50 cases per pallet, 100,000 Sqft would allow for between 350,000 to 385,000 cases of base inventory in stock to support order filling of the 1,131,938 cases per month. Based on usage of 100,000 square feet, the additional cost per case for storage would be (\$ 33,000 divided by 1,131,938) or about \$.0292 per case.

A DOD STUDY OF MILITARY COMMISSARIES

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SERVICE	COMMISSARY STORE	ST/ CNTRY	ZIP	PER VAN	TOTAL PER MONTH
** SERVICE COMPONENT AF					
AF	MAXWELL	AL	36112	\$350.00	\$7,350.00
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AF	ARNOLD AFB	TN	37389	\$367.65	\$1,102.95
** Subtotal **					\$168,891.01
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AR	MERRILL	GA	30533	\$212.00	\$212.00
AR	BUCHANAN	PR +		\$367.65	\$7,720.65
AR	JACKSON	SC	29207	\$350.00	\$8,750.00
** Subtotal **					\$71,670.50
** SERVICE COMPONENT MA					
MA	MCLB ALBANY	GA	31704	\$400.00	\$2,000.00
MA	PARRIS ISLAND	SC	29905	\$350.00	\$2,100.00
** Subtotal **					\$4,100.00
** SERVICE COMPONENT NA					
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A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) SOUTHEASTERN UNITED STATES

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NA	ORLANDO	FL	32862	\$651.00	\$11,718.00
NA	CECIL FIELD	FL	32215	\$459.00	\$2,295.00
NA	KINGS BAY	GA	30600	\$400.00	\$1,200.00
NA	ATHENS	GA	30601	\$284.00	\$568.00
NA	ROSSEVELT RDS	PR +		\$367.65	\$2,573.55
NA	NWS CHARLESTON	SC	29405	\$367.65	\$3,308.85
NA	CHARLESTON	SC	29408	\$367.65	\$2,573.55
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NA	WHITING FIELD	FL	32570	\$435.50	\$1,306.50
NA	NEW ORLEANS	LA	70140	\$607.59	\$4,860.72
NA	GULFPORT	MS	39301	\$519.87	\$2,079.48
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*** Total ***					\$320,183.38

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A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) SOUTHEASTERN UNITED STATES

II. WAREHOUSING COST:

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHSG COST	TRANSP. + COST	TOTAL DISTR. COST	COST PER CASE WHSE HDLG & STGE	TRANSF
** SERVICE COMPONENT AF									
AF	MAXWELL	AL	36112	34420	\$6,512.26	\$7,350.00	\$13,862.26	0.1892	0.2135
AF	GUNTER	AL	36114	15514	\$2,935.25	\$3,150.00	\$6,085.25	0.1892	0.2030
AF	PATRICK	FL	32925	52255	\$9,886.65	\$22,992.00	\$32,878.65	0.1892	0.4399
AF	TYNDALL	FL	32403	30233	\$5,720.08	\$7,695.00	\$13,415.08	0.1892	0.2545
AF	HURLBURT FIELD	FL	32542	18236	\$3,450.25	\$6,259.50	\$9,709.75	0.1892	0.3432
AF	HOMESTEAD	FL	33039	40666	\$7,694.01	\$25,500.00	\$33,194.01	0.1892	0.6270
AF	ELGIN	FL	32542	49446	\$9,355.18	\$14,445.00	\$23,800.18	0.1892	0.2921
AF	AVON PARK	FL	33825	2017	\$381.62	\$718.50	\$1,100.12	0.1892	0.3562
AF	MACDILL	FL	33608	83362	\$15,772.09	\$34,348.50	\$50,120.59	0.1892	0.4120
AF	MOODY	GA	31699	15791	\$2,987.66	\$3,924.00	\$6,911.66	0.1892	0.2484
AF	ROBINS	GA	31098	26503	\$5,014.37	\$4,544.00	\$9,558.37	0.1892	0.1714
AF	KEESLER AFB	MS	39534	47451	\$8,977.73	\$14,627.31	\$23,605.04	0.1892	0.3082
AF	COLUMBUS AFB	MS	39701	14057	\$2,659.58	\$2,800.00	\$5,459.58	0.1892	0.1991
AF	SHAW AFB	SC	29152	22618	\$4,279.33	\$4,900.00	\$9,179.33	0.1892	0.2166
AF	MYRTLE BEACH AFB	SC	29577	15610	\$2,953.41	\$3,150.00	\$6,103.41	0.1892	0.2017
AF	CHARLESTON AFB	SC	29404	40242	\$7,613.79	\$11,384.25	\$18,998.04	0.1892	0.2828
AF	ARNOLD AFB	TN	37389	5795	\$1,096.41	\$1,102.95	\$2,199.36	0.1892	0.1903
** Subtotal **				514216	\$97,289.67	\$168,891.01	\$266,180.68	0.1892	0.3284
** SERVICE COMPONENT AR									
AR	HOWARD	CZ		10759	\$2,035.60	\$2,205.90	\$4,241.50	0.1892	0.2050
AR	ESPINAR	CZ		5317	\$1,005.98	\$1,102.95	\$2,108.93	0.1892	0.2074
AR	COROZAL	CZ		32594	\$6,166.78	\$7,353.00	\$13,519.78	0.1892	0.2255
AR	REDSTONE	AL	35898	4085	\$772.88	\$700.00	\$1,472.88	0.1892	0.1712
AR	RUCKER	AL	36362	3247	\$614.33	\$700.00	\$1,314.33	0.1892	0.2155
AR	MCCLELLAN	AL	36205	25483	\$4,821.38	\$5,250.00	\$10,071.38	0.1892	0.2060
AR	STEWART	GA	31314	24160	\$4,571.07	\$6,496.00	\$11,067.07	0.1892	0.2688
AR	HUNTER	GA	31409	17514	\$3,313.65	\$4,640.00	\$7,953.65	0.1892	0.2649
AR	GORDON	GA	30905	36223	\$6,853.39	\$8,712.00	\$15,565.39	0.1892	0.2405
AR	GILLEM	GA	30050	34462	\$6,520.21	\$4,452.00	\$10,972.21	0.1892	0.1291
AR	MCPHERSON	GA	30330	7330	\$1,386.84	\$848.00	\$2,234.84	0.1892	0.1156
AR	FORT BENNING	GA	31905	58795	\$11,124.01	\$12,528.00	\$23,652.01	0.1892	0.2130
AR	MERRILL	GA	30533	445	\$84.19	\$212.00	\$296.19	0.1892	0.4764
AR	BUCHANAN	PR		34825	\$6,588.89	\$7,720.65	\$14,309.54	0.1892	0.2216
AR	JACKSON	SC	29207	41739	\$7,897.02	\$8,750.00	\$16,647.02	0.1892	0.2096
** Subtotal **				336978	\$63,756.22	\$71,670.50	\$135,426.72	0.1892	0.2126
** SERVICE COMPONENT MA									
MA	MCLB ALBANY	GA	31704	8216	\$1,554.47	\$2,000.00	\$3,554.47	0.1892	0.2434
MA	PARRIS ISLAND	SC	29905	10894	\$2,061.14	\$2,100.00	\$4,161.14	0.1892	0.1927
** Subtotal **				19110	\$3,615.61	\$4,100.00	\$7,715.61	0.1892	0.2145
** SERVICE COMPONENT NA									

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) SOUTHEASTERN UNITED STATES

II. WAREHOUSING COST:

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHSG COST	TRANSP. COST	TOTAL DISTR. COST	COST PER CASE	
								WHSE HDLG & STGE	TRANSP
NA	BERMUDA	BM		6032	\$1,141.25	\$1,102.95	\$2,244.20	0.1892	0.1828
NA	GUANTANAMO BAY	CU		8932	\$1,689.93	\$2,295.00	\$3,984.93	0.1892	0.2569
NA	MAYPORT	FL	32228	16810	\$3,180.45	\$4,590.00	\$7,770.45	0.1892	0.2730
NA	KEY WEST	FL	33040	6944	\$1,313.80	\$4,804.00	\$6,117.80	0.1892	0.6918
NA	JACKSONVILLE	FL	32212	41620	\$7,874.50	\$11,475.00	\$19,349.50	0.1892	0.2757
NA	ORLANDO	FL	32862	30219	\$5,717.43	\$11,718.00	\$17,435.43	0.1892	0.3877
NA	CECIL FIELD	FL	32215	9209	\$1,742.34	\$2,295.00	\$4,037.34	0.1892	0.2492
NA	KINGS BAY	GA	30600	5951	\$1,125.93	\$1,200.00	\$2,325.93	0.1892	0.2016
NA	ATHENS	GA	30601	3586	\$678.47	\$568.00	\$1,246.47	0.1892	0.1583
NA	ROSSEVELT RDS	PR		10238	\$1,937.03	\$2,573.55	\$4,510.58	0.1892	0.2513
NA	NWS CHARLESTON	SC	29405	15912	\$3,010.55	\$3,308.85	\$6,319.40	0.1892	0.2079
NA	CHARLESTON	SC	29408	12871	\$2,435.19	\$2,573.55	\$5,008.74	0.1892	0.1999
NA	PENSACOLA	FL	32508	35506	\$6,717.74	\$10,111.50	\$16,829.24	0.1892	0.2847
NA	WHITING FIELD	FL	32570	5533	\$1,046.84	\$1,306.50	\$2,353.34	0.1892	0.2361
NA	NEW ORLEANS	LA	70140	13080	\$2,474.74	\$4,860.72	\$7,335.46	0.1892	0.3716
NA	GULFPORT	MS	39301	7657	\$1,448.70	\$2,079.48	\$3,528.18	0.1892	0.2715
NA	MERIDIAN	MS	39301	5663	\$1,071.44	\$1,126.17	\$2,197.61	0.1892	0.1988
NA	MEMPHIS	TN	38054	25871	\$4,894.79	\$7,533.60	\$12,428.39	0.1892	0.2911
**	Subtotal **			261634	\$49,501.12	\$75,521.87	\$125,022.99	0.1892	0.2886
***	Total ***			1131938	\$214,162.62	\$320,183.38	\$534,346.00	0.1892	0.2828

A DOD STUDY OF MILITARY COMMISSARIES

ACCT. NAME : JONES COMMISSION

PAGE 1

STORER # RED

DATE: 08/21/89

SKU'S ?

Avg. L.I. Per Pallet

		TRUCK 04	RAIL 08	CHECK COLUMN TRUCK	CHECK COLUMN RAIL
INBOUND RECEIPT					

# CASES PER TRLR/RAILCAR	1,539.0	0.0	1,539.0	0.0	
# CASES PER PALLET/GRAB	54.0	0.0	54.0	0.0	
WEIGHT PER CASE	21.0	0.0	21.0	0.0	
# PALLETS PER TRLR/RAILCAR	28.5	0.0	28.5	0.0	
WEIGHT PER TRLR/RAILCAR	32,319.0	0.0	32,319.0	0.0	
WEIGHT PER PALLET/GRAB	1,134.0	0.0	1,134.0	0.0	
# LINE ITEMS PER TRUCK/CAR	5.0	0.0	5.0	0.0	
# CASES PER LINE ITEM	307.8	0.0	307.8	0.0	
PERCENTAGE BY MODE-----}	100.00%	0.00%	100.0%		
ENTER PERCENTAGE BY TYPE				CASES	
HANDSTACKED PKGS }	0.0%	0.0%	HANDLED		
UNITIZED PALLETS }	25.0%	0.0%	AT ONCE		
ON SLIPSHEETS }	50.0%	0.0%	-----		
USING CLAMP LIFT }	25.0%	0.0%	1		
	100.0%	0.0%			
ORDER FILLING		CODE 20		CHECK	
-----		-----		COLUMN	
# CASES PER ORDER	1539.0		1539.0		
# CASES PER LINE ITEM	30.8		30.8		
# CASES PER PALLET/GRAB	54.0		54.0		
WEIGHT PER ORDER	32319.0		32319.0		
WEIGHT PER CASE	21.0		21.0		
# LINE ITEMS PER ORDER	50.0		50.0		
# PALLETS/GRABS PER ORDER	28.5		28.5		
ORDER FILL-% CASES-CASEPICK	75.0%				
ORDER FILL-% CASES-PALLET UNIT	25.0%				
ORDER FILL-% CASES-CLAMPLIFT	0.0%		100.0%		
% CASES REQUIRING STENCILLING	0.0%				
OUTBOUND-% CASES-HANDSTACKED	0.0%		100.0%		
OUTBOUND-% CASES-PALLETIZED	100.0%				
STOCK BASE & MOVEMENT				CHECK	AVERAGE
-----				COLUMN	PLTS/L.I.
BASE INVENTORY-PALLETS	6,868.0		6,868.0		
BASE INVENTORY-CASES	370,872		370,872		NA
MONTHLY THRUPUT-PALLETS	20,961.8		20,961.8		
MONTHLY THRUPUT-CASES	1,131,938		1,131,937		
		PERCENT			
STACKING HEIGHT-FLOOR	3	80.00%	1,831.5	FLR. POS.	
STACKING HEIGHT-RACK	3	20.00%	1,374	RACK SLOT	
SQUARE FOOTAGE REQ.-FLOOR	89,284	71,427			
SQUARE FOOTAGE REQ.-RACK	142,854	28,571	99,998	TOTAL SQ.	
INVENTORY TURNS PER YEAR	36.63		36.6		
		PER WEEK		TRUCK	
# ORDERS PER MONTH	735.50	169.73	735.50	RECEIPTS	
# RECEIPTS PER MONTH	735.50	169.73	735.50	735.50	

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHSG COST	TRANSP. + COST	TOTAL DISTR. COST	COST PER CASE	
								WHSG	TRANSE
** SERVICE COMPONENT AF									
AF	FLORENNES	BE	9000	1423	\$410.38	\$920.84	\$1,331.22	0.2884	0.6471
AF	RAMSTEIN AB	WG	9012	42691	\$12,311.58	\$27,625.99	\$39,937.57	0.2884	0.6471
AF	SOESTERBERG	NE	9011	7234	\$2,086.20	\$4,681.23	\$6,767.43	0.2884	0.6471
AF	WOENSDRECHT	NE	9000	0	\$0.00	\$0.00	\$0.00	NA	NP
AF	SPANGDAHEM AB	WG	9123	1356	\$391.05	\$877.49	\$1,268.54	0.2884	0.6471
AF	SENBACH AB	WG	9130	10251	\$2,956.27	\$6,633.58	\$9,589.85	0.2884	0.6471
AF	RHEIN-MAIN AB	WG	9057	25490	\$7,351.02	\$16,494.97	\$23,845.99	0.2884	0.6471
AF	TRIER					\$143.01	\$206.74	0.2884	0.6471
AF	LANDSTUHL POST	WG	9690	0	\$0.00	\$0.00	\$0.00	NA	NP
AF	HESSISCH-OLDENDORF	WG	9669	2004	\$577.93	\$1,296.82	\$1,874.75	0.2884	0.6471
AF	HOHN AB	WG	9109	18456	\$5,322.49	\$11,943.16	\$17,265.65	0.2884	0.6471
AF	BITBURG AB	WG	9132	14092	\$4,063.97	\$9,119.15	\$13,183.12	0.2884	0.6471
AF	VOGELWEH	WG	9012	25423	\$7,331.70	\$16,451.61	\$23,783.31	0.2884	0.6471
AF	PRUEM	WG	9692	756	\$218.02	\$489.22	\$707.24	0.2884	0.6471
** Subtotal **				149397	\$43,084.34	\$96,677.07	\$139,761.41	0.2884	0.6471
** SERVICE COMPONENT AR									
AR	CHIEVRES	BE	9088	12335	\$3,557.27	\$7,982.17	\$11,539.44	0.2884	0.6471
AR	SCHINNEN	NE	9011	8145	\$2,348.92	\$5,270.75	\$7,619.67	0.2884	0.6471
AR	SCHWABACH	WG	9200	1667	\$480.74	\$1,078.74	\$1,559.48	0.2884	0.6471
AR	SCHWAEBISCH G	WG	9281	3797	\$1,095.01	\$2,457.10	\$3,552.11	0.2884	0.6471
AR	SCHWAEBISCH H	WG	9025	1895	\$546.50	\$1,226.28	\$1,772.78	0.2884	0.6471
AR	SCHWEINFURT	WG	9033	14160	\$4,083.58	\$9,163.15	\$13,246.73	0.2884	0.6471
AR	SOEGEL	WG	9100	601	\$173.32	\$388.92	\$562.24	0.2884	0.6471
AR	PATCH	WG	9131	11390	\$3,284.74	\$7,370.64	\$10,655.38	0.2884	0.6471
AR	WERTHEIM	WG	9047	2538	\$731.93	\$1,642.38	\$2,374.31	0.2884	0.6471
AR	WIESBADEN	WG	9057	11425	\$3,294.84	\$7,393.29	\$10,688.13	0.2884	0.6471
AR	WILDFLECKEN	WG	9026	2704	\$779.80	\$1,749.80	\$2,529.60	0.2884	0.6471
AR	PANZER	WG	9100	46	\$13.27	\$29.77	\$43.04	0.2885	0.6471
AR	ERLANGEN	WG	9696	3346	\$964.95	\$2,165.25	\$3,130.20	0.2884	0.6471
AR	DEXHEIM	WG	9100	1424	\$410.66	\$921.49	\$1,332.15	0.2884	0.6471
AR	ZWEIBRUECKEN	WG	9052	9220	\$2,658.94	\$5,966.40	\$8,625.34	0.2884	0.6471
AR	HELMSTEDT	WG	9100	244	\$70.37	\$157.90	\$228.27	0.2884	0.6471
AR	BAD KRUEZNACH	WG	9252	5393	\$1,555.28	\$3,489.89	\$5,045.17	0.2884	0.6471
AR	ROBINSON	WG	9154	16781	\$4,839.44	\$10,859.24	\$15,698.68	0.2884	0.6471
AR	REGENSBURG	WG	9100	204	\$58.83	\$132.01	\$190.84	0.2884	0.6471
AR	NEW ULM	WG	9178	6850	\$1,975.46	\$4,432.74	\$6,408.20	0.2884	0.6471
AR	PIRMASENS	WG	9052	7745	\$2,233.57	\$5,011.91	\$7,245.48	0.2884	0.6471
AR	RHEINBERG	WG	9100	2094	\$603.89	\$1,355.06	\$1,958.95	0.2884	0.6471
AR	BAD AIBLING	WG	9098	2004	\$577.93	\$1,296.82	\$1,874.75	0.2884	0.6471
AR	NECKARSULM	WG	9100	354	\$102.09	\$229.08	\$331.17	0.2884	0.6471
AR	OSTERHOLZ-SCHARMBECK	WG	9000	5860	\$1,689.96	\$3,792.09	\$5,482.05	0.2884	0.6471
AR	KITZINGIN	WG	9700	9947	\$2,868.60	\$6,436.85	\$9,305.45	0.2884	0.6471
AR	NEUBRECKE	WG	9100	1003	\$289.25	\$649.06	\$938.31	0.2884	0.6471

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHS COST	TRANSP. + COST	TOTAL DISTR. COST	COST PER CASE	
								WHS	TRANSP
AR	KIRCHGOENS	WG	9700	1704	\$491.41	\$1,102.68	\$1,594.09	0.2884	0.6471
AR	BABENHAUSEN	WG	9100	2723	\$785.28	\$1,762.09	\$2,547.37	0.2884	0.6471
AR	AUGSBURG	WG	9178	16813	\$4,848.67	\$10,879.95	\$15,728.62	0.2884	0.6471
AR	ASCHAFFENBURG	WG	9162	8464	\$2,440.92	\$5,477.18	\$7,918.10	0.2884	0.6471
AR	ANSBACH	WG	9177	11222	\$3,236.29	\$7,261.93	\$10,498.22	0.2884	0.6471
AR	AMBERG	WG	9452	1922	\$554.28	\$1,243.76	\$1,798.04	0.2884	0.6471
AR	HERZO	WG	9100	1431	\$412.68	\$926.02	\$1,338.70	0.2884	0.6471
AR	BAD KISSIGEN	WG	9330	2511	\$724.14	\$1,624.91	\$2,349.05	0.2884	0.6471
AR	GIEBELSTADT	WG	9700	1364	\$393.36	\$882.67	\$1,276.03	0.2884	0.6471
AR	MUNICH	WG	9108	9799	\$2,825.92	\$6,341.08	\$9,167.00	0.2884	0.6471
AR	GERMERSHEIM	WG	9000	717	\$206.77	\$463.98	\$670.75	0.2884	0.6471
AR	MCCULLY	WG	9100	553	\$159.48	\$357.85	\$517.33	0.2884	0.6471
AR	GELNHAUSEN	WG	9091	4459	\$1,285.92	\$2,885.49	\$4,171.41	0.2884	0.6471
AR	MAINZ	WG	9185	8459	\$2,439.48	\$5,473.95	\$7,913.43	0.2884	0.6471
AR	GARMISCH	WG	9053	2016	\$581.39	\$1,304.58	\$1,885.97	0.2884	0.6471
AR	GRAFENWOEHR	WG	9114	6863	\$1,979.21	\$4,441.15	\$6,420.36	0.2884	0.6471
AR	FULDA	WG	9146	7447	\$2,147.63	\$4,819.07	\$6,966.70	0.2884	0.6471
AR	GIESSEN	WG	9169	17688	\$5,101.01	\$11,446.17	\$16,547.18	0.2884	0.6471
AR	MANNHEIM	WG	9086	21590	\$6,226.30	\$13,971.22	\$20,197.52	0.2884	0.6471
AR	LUDWIGSBURG	WG	9154	3269	\$942.74	\$2,115.42	\$3,058.16	0.2884	0.6471
AR	GOEPPINGEN	WG	9061	3792	\$1,093.57	\$2,453.86	\$3,547.43	0.2884	0.6471
AR	HUENSTER	WG	9100	848	\$244.55	\$548.75	\$793.30	0.2884	0.6471
AR	FUERTH	WG	9696	27300	\$7,873.00	\$17,666.24	\$25,539.24	0.2884	0.6471
AR	BERLIN	WG	9742	20333	\$5,863.80	\$13,157.79	\$19,021.59	0.2884	0.6471
AR	BERCHTESGADEN	WG	9100	1711	\$493.43	\$1,107.21	\$1,600.64	0.2884	0.6471
AR	BAUMHOLDER	WG	9034	14267	\$4,114.44	\$9,232.39	\$13,346.83	0.2884	0.6471
AR	KARLSRUHE	WG	9164	10345	\$2,983.38	\$6,694.41	\$9,677.79	0.2884	0.6471
AR	BAD HERSFELD	WG	9146	2005	\$578.22	\$1,297.47	\$1,875.69	0.2884	0.6471
AR	KING	WG	9700	1458	\$420.47	\$943.49	\$1,363.96	0.2884	0.6471
AR	FRANKFURT	WG	9757	27749	\$8,002.49	\$17,956.80	\$25,959.29	0.2884	0.6471
AR	FLIEGERHORST	WG	9700	1416	\$408.36	\$916.32	\$1,324.68	0.2884	0.6471
AR	KELLY	WG	9107	5745	\$1,656.79	\$3,717.68	\$5,374.47	0.2884	0.6471
AR	HOHENFELS	WG	9173	1950	\$562.36	\$1,261.87	\$1,824.23	0.2884	0.6471
AR	ILLESHEIM	WG	9140	3943	\$1,137.11	\$2,551.58	\$3,688.69	0.2884	0.6471
AR	IDAR OBERSTEIN	WG	9000	963	\$277.72	\$623.17	\$900.89	0.2884	0.6471
AR	HAHAU	WG	9165	26866	\$7,747.84	\$17,385.40	\$25,133.24	0.2884	0.6471
AR	HEILBRONN	WG	9176	7716	\$2,225.20	\$4,993.14	\$7,218.34	0.2884	0.6471
AR	FLENSBURG	WG	9100	593	\$171.01	\$383.74	\$554.75	0.2884	0.6471
AR	FISCHBACH	WG	9700	334	\$96.32	\$216.14	\$312.46	0.2884	0.6471
AR	HEIDELBERG	WG	9102	26866	\$7,747.84	\$17,385.40	\$25,133.24	0.2884	0.6471
AR	BAD TOELZ	WG	9050	2150	\$620.03	\$1,391.30	\$2,011.33	0.2884	0.6471
AR	CRAILSHEIM	WG	9751	1673	\$482.47	\$1,082.62	\$1,565.09	0.2884	0.6471
AR	BUEREN	WG	9100	693	\$199.85	\$448.45	\$648.30	0.2884	0.6471
AR	BUEDINGEN	WG	9100	1858	\$535.83	\$1,202.34	\$1,738.17	0.2884	0.6471
AR	BREIERHAVEN	WG	9069	10625	\$3,064.13	\$6,875.60	\$9,939.73	0.2884	0.6471
AR	BINDLACH	WG	9100	2230	\$643.11	\$1,443.07	\$2,086.18	0.2884	0.6471

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHS COST	TRANSP. + COST	TOTAL DISTR. COST	COST PER CASE	
								WHS	TRANSP
AR	BAMBERG	WG	9139	11472	\$3,308.39	\$7,423.71	\$10,732.10	0.2884	0.6471
AR	WUERZBURG	WG	9036	13063	\$3,767.22	\$8,453.27	\$12,220.49	0.2884	0.6471
AR	WILDFLECKEN SUB-FAC	WG	9026	826	\$238.21	\$534.52	\$772.73	0.2884	0.6471
AR	WORMS	WG	9058	5086	\$1,466.74	\$3,291.23	\$4,757.97	0.2884	0.6471
AR	DARMSTADT	WG	9175	9445	\$2,723.83	\$6,112.00	\$8,835.83	0.2884	0.6471
AR	VILSECK	WG	9100	3327	\$959.47	\$2,152.95	\$3,112.42	0.2884	0.6471
**	Subtotal **			522834	\$150,779.20	\$338,333.84	\$489,113.04	0.2884	0.6471
***	Total ***			672231	\$193,863.54	\$435,010.91	\$628,874.45	0.2884	0.6471

Thruput warehousing charge	Marks Per
Transportation and Delivery Charge	4.10 100 kg
	9.20 100 kg
Invoice rate of exchange	0.5169 S per dm
Kilogram equals	2.20462 lbs per kilo
Estimated weight per case	30 lbs per case
	Per Case
Thruput warehousing per cwt	\$0.9613 0.2883
Transportation cost per cwt	\$2.1571 0.6471

===== A DOD STUDY OF MILITARY COMMISSARIES =====

THE DORNBUSH GROUP

Corporate Headquarters:

5180 Phillip Lee Drive, SW
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Atlanta, Georgia 30378 USA
Telephone (U.S.) 404-691-4031
FAX: 404-699-2607
TELEX: 810-751-8618

FACSIMILE TRANSMISSION COVER LETTER

Date: September 15, 1989 From: Robert Dornbush

To: Eldridge J. Vincent, Jr., LTC, USA
Deputy Staff Director
Jones Commission
1211 Fern St., Room A-100
Arlington, VA 22202

FAX NUMBER: (202) 693-2620

1 PAGES TO FOLLOW EXCLUDING THIS COVER SHEET.

IF YOU DO NOT RECEIVE ALL OF THE PAGES, PLEASE CALL AS SOON AS POSSIBLE.

PHONE (404) 691-4031. ASK FOR DAVID TURNER, THANK YOU.
FAX # (404) 699-2607

A DOD STUDY OF MILITARY COMMISSARIES

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS (DRY GOODS) UNITED KINGDOM REGION

SERVICE	COMMISSARY STORE	ST/ CNTR	ZIP	CASES REC'D	WHSG COST	TRANSP. + COST	TOTAL	COST PER CASE	
							DISTR. COST	WHSG	TRANSP.
** SERVICE COMPONENT AF									
AF	RAF MILDENHALL	UK	09200	2522	\$609.82	\$570.48	\$1,180.30	\$0.242	\$0.226
AF	BURTONWOOD	UK	09200	344	\$83.18	\$77.81	\$160.99	\$0.242	\$0.226
AF	MENDITH HILL STATION	UK	09210	3086	\$746.19	\$698.05	\$1,444.24	\$0.242	\$0.226
AF	RAF ALCONBURY	UK	09238	12195	\$2,948.75	\$2,758.51	\$5,707.26	\$0.242	\$0.226
AF	RAF UPPER HAYFORD	UK	09194	16976	\$4,104.80	\$3,839.97	\$7,944.77	\$0.242	\$0.226
AF	RAF SCULTHORPE	UK	09048	743	\$179.66	\$168.07	\$347.73	\$0.242	\$0.226
AF	RAF WETHERWFIELD	UK	00120	1630	\$394.13	\$368.71	\$762.84	\$0.242	\$0.226
AF	RAF GREENHAM COMMON	UK	09150	6528	\$1,578.47	\$1,476.63	\$3,055.10	\$0.242	\$0.226
AF	RAF FAIRFORD	UK	09125	4621	\$1,117.36	\$1,045.27	\$2,162.63	\$0.242	\$0.226
AF	RAF LAKENHEATH	UK	09179	25633	\$6,198.06	\$5,799.18	\$11,996.24	\$0.242	\$0.226
AF	RAF BENTWATERS	UK	09755	13702	\$3,313.14	\$3,099.39	\$6,412.53	\$0.242	\$0.226
AF	RAF CHICKSANDS	UK	09193	4478	\$1,082.78	\$1,012.92	\$2,095.70	\$0.242	\$0.226
** Subtotal **				92458	\$22,356.34	\$20,913.99	\$43,270.33	\$0.242	\$0.226
** SERVICE COMPONENT NA									
NA	EDZELL	UK	09518	2002	\$484.08	\$452.85	\$936.93	\$0.242	\$0.226
NA	HOLY LOCK	UK	09514	8125	\$1,964.63	\$1,837.88	\$3,802.51	\$0.242	\$0.226
** Subtotal **				10127	\$2,448.71	\$2,290.73	\$4,739.44	\$0.242	\$0.226

===== A DOD STUDY OF MILITARY COMMISSARIES =====



FORCE MANAGEMENT
AND PERSONNEL

THE OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D.C. 20301-4000

Mr. Robert E. Dornbush
President and Chief Executive Officer
The Dornbush Group
5180 Phillip Lee Drive, S. W.
Atlanta, Georgia 30378

Dear Mr. Dornbush,

Thank you for taking time in your busy schedule to meet with members of the Jones Commission on Wednesday, 9 August 1989. As you were briefed, the congressional charter of the commission required that we look at all segments of the military commissary system to include the commercial sector of our industry.

The Jones Commission has been extended the authority to communicate directly with private sector firms to seek information, if that firm is willing to provide it voluntarily, without reimbursement from the government. I have enclosed a copy of the legal position provided to us on that subject.

As previously discussed, we are interested in cost elements of distribution segments for Central Europe, the United Kingdom as well as the Southeast United States. Attached at Enclosures are site breakdowns of each segment with the data you requested to conduct the analysis. The zip codes may not be precise but are in the general vicinity of the particular commissary store.

If possible, we would like the estimate provided as a cost per case with cost isolated between the transportation and remaining cost segment.

The system envisioned for the Southeast United States would be as follows: The government would own the inventory and buy products from vendors based on an inventory management model in its region computer. Computer to computer links between the contractor and government would operate similarly to the Proctor and Gamble System. The government would provide a remote site ordering and vendor bill paying function. The contractor (Dornbush Group) would perform the receipt, storage, issue, accounting and distribution functions similar to the service provided to Proctor and Gamble. Individual commissaries would order product from the distribution warehouse using dial up PDEDs or direct interface from store point-of-sale scanners to the contractor's computer. The contractor would deliver product to each store daily (6 per week) or less frequently as warranted by full car lot shipments. Contractor would provide documentation (electronic or paper) transferring accountability from the warehouse to the commissary store. All receipts from vendors would be in direct car lot


===== A DOD STUDY OF MILITARY COMMISSARIES =====

shipment from manufacturers. Shipments to Bermuda, Puerto Rico, Cuba and Panama would encompass van stuffing and delivery to the port of embarkation.

The system for Europe would be identical except government transportation would be used from the manufacturers to the warehouse site in Europe. The contractor can use one or more of its warehouse in Europe if proper accountability of government inventory can be maintained. 90% of Central Europe stores are south of Geissen in West Germany.

Should you need any additional information to prepare the estimate. Please have your staff assistant call me at (703)693-2208.

Sincerely,



Eldridge J. Vincent Jr., LTC, USA
Deputy Staff Director, Jones Commission

Enclosure 1 - Southeastern U.S.
Enclosure 2 - Central Europe
Enclosure 3 - United Kingdom
Enclosure 4 - Private Sector Guidelines

A DOD STUDY OF MILITARY COMMISSARIES

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06/14/89

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) SOUTHEASTERN UNITED STATES

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
** SERVICE COMPONENT AF						
AF	MAXWELL	AL	36112	2007815	34420	44745
AF	GUNTER	AL	36114	904951	15514	20168
AF	PATRICK	FL	32925	3048201	52255	67931
AF	TYNDALL	FL	32403	1763567	30233	39303
AF	HURLBURT FIELD	FL	32542	1063755	18236	29177
AF	HOMESTEAD	FL	33039	2372190	40666	52866
AF	EGLIN	FL	32542	2884335	49446	64280
AF	AVON PARK	FL	33825	117651	2017	3227
AF	MACDILL	FL	33608	4862769	83362	108370
AF	MOODY	GA	31699	921124	15791	20528
AF	ROBINS	GA	31098	1545994	26503	34453
AF	KESSLER AFB	MS	39534	2767980	47451	61686
AF	COLUMBUS AFB	MS	39701	820007	14057	18275
AF	SHAW AFB	SC	29152	1319393	22618	29404
AF	MYRTLE BEACH AFB	SC	29577	910604	15610	20293
AF	CHARLESTON AFB	SC	29404	2347436	40242	52315
AF	ARNOLD AFB	TN	37389	338016	5795	7533
** Subtotal **				29995788	514216	674554
** SERVICE COMPONENT AR						
AR	HOWARD	CZ		627584	10759	13986
AR	ESPINAR	CZ		310125	5317	6912
AR	COROZAL	CZ		1901337	32594	42373
AR	REDSTONE	AL	35898	238298	4085	5311
AR	RUCKER	AL	36362	189372	3247	4221
AR	MCCLELLAN	AL	36205	1486508	25483	33128
AR	STEWART	GA	31314	1409332	24160	31408
AR	HUNTER	GA	31409	1021651	17514	22768
AR	GORDON	GA	30905	2112970	36223	47089
AR	GILLEM	GA	30050	2010296	34462	44801
AR	MCPHERSON	GA	30330	427593	7330	9529
AR	FORT BENNING	GA	31905	3429698	58795	76433
AR	MERRILL	GA	30533	25918	445	578
AR	BUCHANAN	PR		2031435	34825	45272
AR	JACKSON	SC	29207	2434788	41739	54261
** Subtotal **				19656905	336978	438070
** SERVICE COMPONENT MA						
MA	MCLB ALBANY	GA	31704	479264	8216	10681
MA	PARRIS ISLAND	SC	29905	635482	10894	14162

A DOD STUDY OF MILITARY COMMISSARIES

Page No. 2
08/14/89

JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) SOUTHEASTERN UNITED STATES

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
** Subtotal **				1114746	19110	24843
** SERVICE COMPONENT NA						
NA	BERMUDA	BM		351855	6032	7841
NA	GUANTANAMO BAY	CU		521011	8932	11611
NA	MAYPORT	FL	32228	980586	16810	21853
NA	KEY WEST	FL	33040	405078	6944	9028
NA	JACKSONVILLE	FL	32212	247859	4249	5524
NA	ORLANDO	FL	32862	1762779	30219	39285
NA	CECIL FIELD	FL	32215	537178	9209	11971
NA	KINGS BAY	GA	30600	347146	5951	7736
NA	ATHENS	GA	30601	209178	3586	4662
NA	ROSSEVELT RDS	PR		713854	10238	15909
NA	NWS CHARLESTON	SC	29405	928217	15912	20686
NA	CHARLESTON	SC	29408	750823	12871	16733
NA	PENSACOLA	FL	32508	2071200	35506	46158
NA	WHITING FIELD	FL	32570	322776	5533	7193
NA	NEW ORLEANS	LA	70140	762987	13080	17004
NA	GULFPORT	MS	39301	446645	7657	9954
NA	MERIDIAN	MS	39301	330364	5663	7362
NA	MEMPHIS	TN	38054	1509158	25871	33633
** Subtotal **				13198694	224263	294143
*** Total ***				63966133	1094567	1431610

A DOD STUDY OF MILITARY COMMISSARIES

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JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
** SERVICE COMPONENT AF						
AF	FLORENNES	BE	09000	83033	1423	1850
AF	RAMSTEIN AB	WG	09012	2490337	42691	55499
AF	SOESTERBERG	NE	09011	431551	7234	9404
AF	WOENSDRECHT	NE	09000	0	0	0
AF	SPANGDAHLEM AB	WG	09123	790874	1356	1763
AF	SEMBACH AB	WG	09130	597985	10251	13326
AF	RHEIN-MAIN AB	WG	09057	1486937	25490	33138
AF	TRIER	WG	09000	12877	221	287
AF	LANDSTUHL POST	WG	09690	0	0	0
AF	HESSISCH-OLDENDORF	WG	09669	116909	2004	2605
AF	HAHN AB	WG	09109	1076596	18456	23992
AF	DITERSHOF AB	WG	09102	822082	14092	18321
AF	VOGELWEH	WG	09012	1483003	25423	33050
AF	PRUEM	WG	09692	44162	756	981
** Subtotal **				9436346	149397	194216
** SERVICE COMPONENT AR						
AR	CHIEVRES	BE	09088	719541	12335	16036
AR	SCHINNEN	NE	09011	475100	8145	10588
AR	SCHWABACH	WG	09200	97229	1667	2167
AR	SCHWAEBISCH G	WG	09281	221507	3797	4937
AR	SCHWAEBISCH H	WG	09025	110525	1895	2463
AR	SCHWEINFURT	WG	09033	826010	14160	18408
AR	SOEGEL	WG	09100	35058	601	782
AR	PATCH	WG	09131	666439	11390	14807
AR	WERTHEIM	WG	09047	148060	2538	3299
AR	WIESBADEN	WG	09057	1686031	11425	14852
AR	WILDFLECKEN	WG	09026	262739	2704	3515
AR	PANZER	WG	09100	2651	46	59
AR	ERLANGEN	WG	09696	201013	3346	4480
AR	DEXHEIM	WG	09100	83101	1424	1852
AR	ZWEIBRUECKEN	WG	09052	537808	9220	11985
AR	HELMSTEDT	WG	09100	14254	244	317
AR	BAD KRUEZNACH	WG	09252	314565	5393	7011
AR	ROBINSON	WG	09154	978896	16781	21815
AR	REGENSBURG	WG	09100	11905	204	265
AR	NEW ULM	WG	09178	399597	6850	8905
AR	PIRMASENS	WG	09052	451836	7745	10096
AR	RHEINBERG	WG	09100	122158	2094	2722
AR	BAD AIBLING	WG	09098	116909	2004	2605
AR	NECKARSULM	WG	09100	20655	354	460
AR	OSTERHOLZ-SCHARMBECK	WG	09000	341882	5860	7619
AR	KITZINGIN	WG	09700	580280	9947	12931

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JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
AR	NEUBRECKE	WG	09100	58517	1003	1304
AR	KIRCHGOENS	WG	09700	99412	1704	2215
AR	BABENHAUSEN	WG	09100	158857	2723	3540
AR	AUGSBURG	WG	09178	980817	16813	21858
AR	ASCHAFFENBURG	WG	09162	493738	8464	11003
AR	ANSBACH	WG	09177	654646	11222	14589
AR	AMBERG	WG	09452	112163	1922	2499
AR	HERZO	WG	09100	83490	1431	1860
AR	BAD KISSIGEN	WG	09330	146484	2511	3264
AR	GIEBELSTADT	WG	09700	79556	1364	1773
AR	MUNICH	WG	09108	571618	9799	12739
AR	GERMERSHEIM	WG	09000	41808	717	932
AR	MCCULLY	WG	09100	32242	553	718
AR	GELNHAUSEN	WG	09091	260090	4459	5796
AR	MAINZ	WG	09185	493464	8459	10997
AR	GARMISCH	WG	09053	117633	2016	2621
AR	GRAFENWOEHR	WG	09114	400334	6863	8922
AR	FULDA	WG	09146	434430	7447	9681
AR	GIESSEN	WG	09169	1031800	17688	22994
AR	MANNHEIM	WG	09086	1259450	21590	28067
AR	LUDWIGSBURG	WG	09154	190666	3269	4249
AR	GOEPPINGEN	WG	09061	221229	3792	4930
AR	MUENSTER	WG	09100	49477	848	1103
AR	FUERTH	WG	09696	1592510	27300	35490
AR	BERLIN	WG	09742	1186125	20333	26433
AR	BERCHTESGADEN	WG	09100	99806	1711	2224
AR	BAUMHOLDER	WG	09034	832287	14267	18548
AR	KARLSRUHE	WG	09164	603424	10345	13448
AR	BAD HERSFELD	WG	09146	116976	2005	2607
AR	KING	WG	09700	85060	1458	1895
AR	FRANKFURT	WG	09757	1618717	27749	36074
AR	FLIEGERHORST	WG	09700	82615	1416	1841
AR	KELLY	WG	09107	335116	5745	7469
AR	HOHENFELS	WG	09173	113733	1950	2535
AR	ILLESHEIM	WG	09140	229983	3943	5125
AR	IDAR OBERSTEIN	WG	09000	56127	963	1251
AR	HAHAU	WG	09165	1567237	26866	34927
AR	HEILBRONN	WG	09176	450121	7716	10030
AR	FLENSBURG	WG	09100	34599	593	771
AR	FISCHBACH	WG	09700	19458	334	434
AR	HEIDELBERG	WG	09102	1567237	26866	34927
AR	BAD TOELZ	WG	09050	125453	2150	2796
AR	CRAILSHEIM	WG	09751	97595	1673	2175
AR	BUEREN	WG	09100	40424	693	901
AR	BUEDINGEN	WG	09100	108344	1858	2415

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JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) CENTRAL EUROPEAN REGION

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
AR	BREMERHAVEN	WG	09069	619783	10625	13812
AR	BINDLACH	WG	09100	130109	2230	4832
AR	BAMBERG	WG	09139	669206	11472	14914
AR	WUERZBURG	WG	09036	762020	13063	16982
AR	WILDFLECKEN SUB-FAC	WG	09026	48206	826	1074
AR	WORMS	WG	09058	296670	5086	6611
AR	DARMSTADT	WG	09175	550946	9445	12278
AR	VILSECK	WG	09100	194092	3327	4325
** Subtotal **				31631649	522834	681774
*** Total ***				41067995	672231	875990

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JONES COMMISSION REVIEW DATA FOR DOD COMMISSARIES-FY88 SEMI-PERISHABLE PRODUCTS(DRY GOODS) UNITED KINGDOM REGION

SERVICE	COMMISSARY STORE	STATE/ COUNTRY	ZIP	TOTAL MONTHLY AVERAGE SALES(\$)	TOTAL CASES RECEIVED (DRY)	TOTAL CUBIC FT RECEIVED (DRY)
** SERVICE COMPONENT AF						
AF	RAF MILDENHALL	UK	09200	147108	2522	3278
AF	BURTONWOOD	UK	09200	20050	344	447
AF	MENDITH HILL STATION	UK	09210	180002	3086	4012
AF	RAF ALCONBURY	UK	09238	711387	12195	15854
AF	RAF UPPER HAYFORD	UK	09194	990305	16976	22069
AF	RAF SCULTHORPE	UK	09048	43375	743	966
AF	RAF WETHERSFIELD	UK	09120	95108	1630	2119
AF	RAF GREENHAM COMMON	UK	09150	380789	6528	8486
AF	RAF FAIRFORD	UK	09125	269530	4621	6007
AF	RAF LAKENHEATH	UK	09179	1495246	25633	33322
AF	RAF BENTWATERS	UK	09755	799292	13702	17813
AF	RAF CHICKSANDS	UK	09193	261192	4478	5821
** Subtotal **				5393384	92458	120194
** SERVICE COMPONENT NA						
NA	EDZELL	UK	09518	116789	2002	2603
NA	HOLY LOCH	UK	09514	473938	8125	10562
** Subtotal **				590727	10127	13165
*** Total ***				5984111	102585	133359

A DOD STUDY OF MILITARY COMMISSARIES



DEFENSE LOGISTICS AGENCY
HEADQUARTERS
CAMERON STATION
ALEXANDRIA, VIRGINIA 22304-6100



16 MAY 1989

IN REPLY
TO DLA-P

SUBJECT: Improving the Acquisition Process -- Buying Best Value

TO: Heads of HQ DLA Principal Staff Elements
Commanders of DLA Supply Centers
Commanders of DLA Service Centers
Commanders of DLA Defense Depots
Commanders of DCAS Regions

1. In his 1 May 1989 memorandum (enclosed), the Deputy Secretary of Defense affirms his commitment to apply Total Quality Management and 'Best Value' contracting as key elements in our quest for increasing productivity. He subscribes to these concepts, being institutionalized in the DoD's acquisition process by the Under Secretary of Defense for Acquisition (USD(A)), as the cornerstones of the Department's acquisition process.

2. I fully support the applications of these concepts as described by the Deputy Secretary of Defense. The vision and leadership path he directs will allow us to continue on our present course of seeking excellence in the acquisition process and to build and expand upon these efforts with increasing fervor. Please give his memorandum the widest possible dissemination in your organization.

1 Encl

CHARLES MCCAUSLAND
Lieutenant General, USAF
Director

A DOD STUDY OF MILITARY COMMISSARIES



WASHINGTON, D.C. 20301

1 MAY 1993

MEMORANDUM FOR SECRETARIES OF THE MILITARY DEPARTMENTS
CHAIRMAN, JOINT CHIEFS OF STAFF
UNDER SECRETARIES OF DEFENSE
ASSISTANT SECRETARIES OF DEFENSE
COMPTROLLER
GENERAL COUNSEL
INSPECTOR GENERAL
DIRECTOR, ADMINISTRATION AND MANAGEMENT
DIRECTORS OF THE DEFENSE AGENCIES

SUBJECT: Improving the Acquisition Process — Buying Best Value

The Department of Defense must continuously seek measures to increase productivity in the defense acquisition process to live within budget constraints without jeopardizing national defense and readiness. Recently, the Under Secretary of Defense for Acquisition (USD(A)) took action making Total Quality Management (TQM) and "Best Value" contracting key elements in the quest for increased productivity. I subscribe to these concepts as the cornerstones of the Department's acquisition process.

Inherent in TQM is the notion that all acquisition functions can profit from a total commitment to continuous process improvement. This commitment begins with fostering a climate that demands, recognizes, and rewards excellence. Those contractors who provide "Best Value" to the government by consistently demonstrating, through performance on production contracts, an ability to deliver on time while consistently improving quality and reducing cost should be rewarded for their accomplishments. Within DoD, development and retention of a competent, dedicated, and well trained work force must be ensured. Each person in the Department must treat quality as his or her direct responsibility. All Departmental personnel are expected to strive for continuous process improvement and foster excellence in acquisition. Further, the TQM process requires that we be a knowledgeable customer in dealing with defense producers both at home and abroad. This entails carefully articulating realistic and cost effective contract requirements and encouraging suppliers to provide efficient, innovative means to meet these requirements. Simply stated, all suppliers must understand fully what we expect of them in terms of efficient performance, firm delivery requirements, and uncompromising quality. They, in turn, should expect and receive

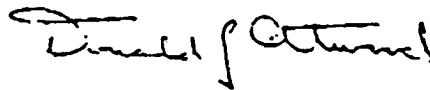
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===== A DOD STUDY OF MILITARY COMMISSARIES =====

a timely, fair, and professional response in a streamlined proposal evaluation and contract award process, followed by firm, fair, and responsive contract administration.

DoD will continue to use competition to bring about an environment conducive to the pursuit of TQM. To the extent practical, suppliers should expect a stable DoD business relationship, but clearly understand that failure to honor their contractual commitments will result in the reduction or elimination of future DoD business. Well crafted competitions should not be looked upon as a threat, but rather, as opportunities for the most efficient and highest quality producers to gain and maintain increased DoD business. As we structure our competitions, past performance, including quality, cost and delivery should be more significant determinants in contract award decisions.

The USD(A) will integrate and prioritize the many ongoing and worthwhile improvement efforts aimed at getting more for our DoD dollars by improving the total acquisition process.



Donald J. Atwood

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7 SEC. 824. TEST PROGRAM FOR USE OF SIMPLIFIED PROCE-
8 DURES IN THE COMPETITIVE AWARD OF CER-
9 TAIN CONTRACTS ON THE BASIS OF QUALITY
10 FACTORS

11 (a) TEST PROGRAM.—The Secretary of Defense shall
12 conduct a test program under which the Secretary of a mili-
13 tary department or the head of a Defense Agency, notwith-
14 standing section 2305(b)(4)(A)(ii) of title 10, United States
15 Code, may award a contract for the procurement of property
16 or services primarily on the basis of design or technical qual-
17 ity factors after evaluation of competitive proposals without
18 discussions with offerors.

19 (b) PROCUREMENT OF PROPERTY OTHER THAN COM-
20 MERCIAL PRODUCTS.—The Secretary of a military depart-
21 ment or the head of a Defense Agency may award a contract
22 for the procurement of property or services, other than com-
23 mercial items, under the test program as provided in subsec-
24 tion (a) if the Secretary or agency head—

●5 1352 FCS

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1 (1) specifically reserves, in the solicitation issued
2 in connection with the procurement, the right to accept
3 an initial proposal without discussions;

4 (2) evaluates all offers on the basis of the evalua-
5 tion criteria specified in the solicitation;

6 (3) awards the contract to the contractor that
7 demonstrates that—

8 (A) the design and technical features of the
9 property offered by the contractor are superior in
10 quality or performance to the property offered by
11 the other offerors; and

12 (B) there is a low risk of—

13 (i) delay in delivery of the property to
14 the military department or Defense Agency
15 concerned;

16 (ii) increase in the cost of the property
17 to such military department or Defense
18 Agency; and

19 (iii) failure of the property to meet the
20 performance criteria under the contract; and

21 (4) determines that—

22 (i) the price contained in the offer submitted
23 by the contractor awarded the contract is fair and
24 reasonable; and

1 (ii) the product offered by the contractor at
2 that price represents the best value to the Gov-
3 ernment in relation to other offers received in
4 connection with the procurement.

5 (c) **PROCUREMENT OF COMMERCIAL PRODUCTS.**—The
6 Secretary of a military department or the head of a Defense
7 Agency may award a contract for the procurement of com-
8 mercial products under the test program as provided in sub-
9 section (a) if the Secretary or agency head determines that—

10 (1) the price contained in the offer submitted by
11 the contractor awarded the contract is fair and reason-
12 able; and

13 (2) the product offered by the contractor at that
14 price represents the best value to the Government in
15 relation to other offers received in connection with the
16 procurement.

17 (d) **PERIOD OF TEST PROGRAM.**—Contracts may be
18 awarded under the test program during a 3-year period pre-
19 scribed by the Secretary of Defense. Such period shall com-
20 mence not later than 270 days after the date of the enact-
21 ment of this Act.

22 (e) **DESIGNATION OF DEPARTMENT OF DEFENSE PAR-**
23 **TICIPANTS.**—The Secretary of Defense shall designate the
24 organizations within the Department of Defense that will
25 participate in the test program. The Secretary shall designate

===== A DOD STUDY OF MILITARY COMMISSARIES =====

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1 each organization on the basis of the total dollar value of the
2 procurement actions taken by such organization in the fiscal
3 year ending September 30, 1989, and such other factors as
4 the Secretary considers appropriate. The total dollar value of
5 all procurement actions taken during such fiscal year by all
6 organizations so designated may not exceed the amount equal
7 to 30 percent of the dollar value of all procurement actions
8 taken by the Department of Defense in such fiscal year.

9 (f) **LIMITATION.**—(1) No contract for the acquisition of
10 a major system may be awarded under the test program.

11 (2) As used in the section, the term "major system"
12 shall have the same meaning as is provided in section
13 2302(5) of title 10, United States Code.

14 (g) **REPORT.**—Not later than 270 days after the expira-
15 tion of the 3-year period prescribed pursuant to subsection
16 (d), the Secretary of Defense shall submit to the Committees
17 on Armed Services of the Senate and the House of Repre-
18 sentatives a report on the test program. The report shall in-
19 clude any recommendations for legislation that the Secretary
20 considers appropriate regarding the competitive award of
21 contracts without discussions with offerors.

22 (h) **DEFINITION.**—In this section:

23 (1) The term "commercial product" shall have the
24 same meaning as is provided in section 822(g)(1) of
25 this Act.

== A DOD STUDY OF MILITARY COMMISSARIES ==

4065/28
LFS-1X099

MARINE CORPS COMMISSARY SYSTEM CENTRAL DISTRIBUTION CENTER OPERATIONS

DISCUSSION:

The Marine Corps commissary system is centrally managed by Headquarters Marine Corps, Code (LFS). The Marine Corps commissaries are centrally managed by the East Coast Commissary Complex (ECCC) at MCB, Camp Lejeune and the West Coast Commissary Complex (WCCC) located at MCAS, El Toro. Each complex operates a Central Distribution Center (CDC) in support of the respective complex stores.

The West Coast CDC was established in 1979 and currently supports 7 stores. CDC support to the Iwakuni Commissary began in 1983 and the Kaneohe Bay, Hawaii store has its own Remote Distribution Center (RDC). The East Coast CDC was established in 1982 and currently supports 5 stores. The Albany Commissary and the Quantico Commissary have RDC's.

The use of CDC's centralizes ordering, receiving and pricing, improves fill rates, and eliminates the need for large contiguous warehouse operations in support of individual commissaries. The transportation costs normally paid from Trust Fund are offset by redistribution allowances.

The benefits of supporting retail operations by using Central Distribution Centers would seem to be clear. Retail industry operates exclusively with one form or another of central distribution support. A comparison of military CDC operations to retail CDC operations must take into account the factor that commercial grocers have the final say on how a product is to be delivered to its outlets. The military system allows the manufacturer a great deal of leeway on delivery methods.

Marine Corps Distribution Allowances FY88

- Total amount of distribution allowance \$285,131.
 - WCCC CDC \$242,994.
 - ECCC CDC \$42,137.
- Number of vendors involved with distribution allowances.
 - WCCC (90 vendors)
 - ECCC (9 vendors)
 - total (99 vendors)
 - WCCC total vendors 237 = 38% participation
 - ECCC total vendors 300 = 3% participation

===== A DOD STUDY OF MILITARY COMMISSARIES =====

DISCUSSION:

In order to put the varying participation in redistribution allowances into perspective it is advantageous to briefly describe several factors that impact on the situation. The Central Distribution Center operated in support of the West Coast Commissary Complex was established some three years prior to the East Coast operation, supports more stores, and is twice as large. The West Coast stores include operations geographically remote, in high desert areas, thus limiting back haul opportunities for manufacturers and increasing breakdown risk. Negotiations resulted in full truckloads replacing costly partial deliveries. In addition, delivery schedules were adjusted to reduce the number of deliveries required, thus saving the manufacturer shipping costs. The WCCC was quick to realize that in select circumstances, the use of the CDC could greatly benefit a manufacturer. The joint realization of available benefits led to negotiations resulting in a redistribution allowance being paid to the Marine Corps for providing the service. The East Coast operation was last to consolidate and currently has limited space to offer tangible benefits of redistribution to a large number of manufacturers. The East Coast CDC will doubled in size following a FY91 improvement project and two current RDC's will be closed. It is anticipated the participation in the benefits of redistribution will greatly increase on the East Coast following the completion of the scheduled project.

DISTRIBUTION COSTS ANALYSIS:

- Distribution costs

-- Labor - 31 people- \$967,879 total

--- WCCC \$543,407

--- ECCC \$424,472

-- Transportation - \$286,000

--- WCCC \$183,000

--- ECCC \$103,000

-- Commissary Management Information Systems (CMIS)
(Analysis of processing Costs)

--- Processing charges normally run about \$1,400
per month for each complex based on Customer Invoice System (CIS)
charges.

===== A DOD STUDY OF MILITARY COMMISSARIES =====

COST PER CASE ANALYSIS:

- The following analysis develops the cost per case to operate the Marine Corps Central Distribution Center located at the West Coast Commissary Complex, El Toro, CA. All figures reflect FY88 year end results.

-- Labor Cost	\$543,407
-- Transportation Costs	\$184,000 (includes trailer maintenance)
-- CMIS costs	\$16,820
TOTAL	\$744,227
<u>Cases shipped-</u>	1,961,874

Total cost divided by cases shipped $\frac{\$744,227}{1,961,874}$

equals a cost per case of 38 cents

Cost per case analysis less redistribution allowance earned.

Total cost of \$744,227-\$242,994 (RDA) = \$501,233.

Total cost divided by cases shipped $\frac{\$501,223}{1,961,874}$

equals a cost per case of 26 cents